US-ISSN-0015-4105

FLORIDA HEALTH NOTES

VOLUME 67, NO. 1 JANUARY 1975

Prenatal Care

Prenatal Care

Few human events attract more attention and comment than pregnancy; few share the intimate concern of both the individual and society. The subject is shrouded in mystery and myth, folklore and superstition. Every society, from the most primitive to the most advanced, has its rules governing the behavior of expectant mothers: some useful, some harmless but silly, and some dangerous.

The reasons for this concern are not hard to find. Until recently, childbearing was among the most hazardous of occupations. A seventeenth century physician reported that one woman in 44 died in childbed. By 1933, this figure had improved to about one in 200. Since 1933 more improvement has been made than in all the previous centuries.

A few generations ago, the doctor's role in pregnancy was to arrive in time for the delivery. Prenatal care, if any, consisted primarily of measuring the pelvis.

Some of this neglect may have been due to a realistic sense of helplessness; not much was known and not much could be done.

But other factors probably entered in. Women's medical problems were unsuitable topics for public discussion — the earliest books on obstetrics had to be defended against charges of indecency. Also, a long religious tradition taught that the problems and suffering of childbearing were a direct result of Adam and Eve's sin. For many years after the discovery of ether and chloroform, church people discouraged their use to relieve the pain of delivery. Not until Queen Victoria used chloroform in giving birth did anaesthesia become popular.

Concern for the health and comfort of mothers has increased dramatically in this century, but more remains to be done. The United States is the richest country on Earth, but it lags behind many other countries in maternal and infant health. This country's infant mortality rate is almost 50% higher than Sweden's (although some of this is due to different ways of compiling statistics).

Concepts of prenatal care are growing along with our knowledge of health maintenance. Ideally, prenatal care should begin before pregnancy. In fact, it may involve treatment of people other than the expectant woman. This child's hearing impairment resulted from Rubella (German Measles). His mother acquired the disease during the first three months of pregnancy. All such cases could be prevented, because an effective immunization is available. But the immunization is not recommended for women of childbearing age, because they might be pregnant without knowing it. For this reason, school children are immunized, so that they will not spread the disease. When school children are immunized (as is required by law) the disease does not spread, and pregnant women are safe.

March of Dimes Photo

A number of explanations for this condition have been proposed — even to the point of suggesting that pure racial stocks are healthier than mixed ones. Such speculations are no longer necessary. We now have convincing evidence that most of the problems of pregnancy are avoidable.

New evidence suggests that many of the present infant deaths can be avoided through adequate maternal health care. Not only can deaths be reduced, but many of the conditions that lead to the birth of physically and mentally handicapped children can also be prevented.

Education is a major part of prenatal care. Folklore and myth influence even the rich and well educated. Some of these myths frighten; some place unnecessary restrictions on a mother's freedom, and some are dangerous. If competent health personnel neglect their role as educators, the void will usually be filled by amateurs with uncertain qualifications.

Nothing is more precious to society than a child, and nothing more vulnerable. A child who enters the world with a handicap that could have been prevented is tragic — a burden to himself and to his society. An infant who dies unnecessarily reflects on the society responsible for his care.

Health care for the mother and for the child are inseparable. Prenatal care not only benefits the mother, but also promotes the health of the child-to-be. Through maternal health care, the number of handicapped children can be reduced.

This issue of *Florida Health Notes* will deal with current issues in prenatal care, and with efforts to reduce the risks of pregnancy.

FLORIDA HEALTH NOTES

Published monthly by the Division of Health (E. Charlton Prather, M.D., M.P.H., Director) of the Florida Department of Health and Rehabilitative Services. Publication office, Florida Health Notes, 1217 Pearl St., Jacksonville, Florida 32201. Second Class Postage paid at Jacksonville, Florida. Printed since 1892, this publication is for individuals and institutions with an interest in the state's health program. Permission is given to quote any story providing credit is given to the Division of Health.

International Standard Serial Number—US-ISSN-0015-4105

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Post Office Form 3579 should be mailed to Box 210, Jacksonville, Florida 32201.

VOLUME 67, NO. 1 JANUARY 197[illegible]

The High Risk Pregnancy

A number of conditions increase the risks involved in pregnancy. Without adequate care, they can be dangerous to the mother, to the child, or to both.

1. Age:

Teenagers and women over 40 are more likely to have trouble with their pregnancies. The risks increase sharply with every year below 17 or over 40. Women who have their first pregnancy after the age of 35 run increasingly greater risks.

Teenagers face a greater risk of such problems as prematurity, excessive weight gain and toxemia. In addition, they often face nutritional deficiencies — particularly iron deficiency anemia. They are growing rapidly themselves, and are less able to cope with the demands of the developing fetus. They are also prone to eating nutritionally inadequate diets, and to "starvation diets" for quick weight loss.

Women over 40 are more likely to have infants with neurological abnormalities. The frequency of Down's syndrome (mongolism) rises sharply. Pregnancies under the age of 15 are also hazardous with respect to congenital defects.

Many complications of pregnancy are associated with lack of rest and recuperation between pregnancies. Also, children often receive better care when there is a reasonable space between their births. Women who receive prenatal care through a county health department may receive information about family planning.

The number of premature and other "at risk" infants can be reduced by adequate prenatal care. Improvements in the health of infants and mothers is expected to reduce the number of children requiring institutional care.

2. Weight:

Women who begin their pregnancy weighing less than 100 pounds, or more than 200 pounds are more likely to have problems. Weight loss, however, is not recommended during pregnancy, because of the increased nutrient requirements.

3. Previous Pregnancy History:

The risks of pregnancy become greater after a fifth or sixth child. A mother's health can also be impaired by pregnancies spaced too close together, without time in between for recuperation.

Surgical deliveries and prolonged labor (24 hours or more) are associated with increased risks in future pregnancies.

Previous fetal loss, premature births, early infant losses, infants with cerebral palsy, mental retardation, or birth trauma are associated with increased risk.

4. Medical History:

Hypertension (high blood pressure)
kidney disease
diabetes
cancer
heart disease
pregnancy lasting more than 42 weeks
tuberculosis
severe malnutrition

These are some of the past or present conditions that can require special treatment during pregnancy.

5. Additional Medical Conditions:

Mental retardation, serious psychological or marriage problems, failure to keep medical appointments, and failure to follow medical recommendations increase the risk.

Toxemia, bleeding after 12 weeks gestation, anemia, multiple pregnancy (twins, triplets, etc.), require special attention.

Alcohol or narcotic addiction, heavy smoking, and the use of any drug (including aspirin) not prescribed by a physician who knows about the pregnancy are hazardous.

Some social factors are associated with greater risks because they involve a greater chance of poor nutrition or lack of medical care. These factors include poverty, lack of education, illegitimate pregnancy, and distance from medical facilities.

Content of Prenatal Care

Under ideal conditions, prenatal care should begin before conception. This is because the developing fetus is most vulnerable during the first few weeks of life — a time when the woman does not know she is pregnant. Such things as poor diet, drugs, German measles, and pelvic X-rays can be harmful at this time. These dangers are all avoidable if the pregnancy is planned.

Another area of concern is nutrition. Many women become pregnant at a time in their life when a Coke and french fries are considered a "meal." Young people are often experimenting with fad diets, or experiencing "yo-yo" weight gain and loss. Iron and vitamin deficiencies are common, due to failure to eat nutritionally adequate diets.

The mother who is poorly nourished has a greater chance of having problems at birth, of having a premature or low birth weight child.

Existing medical problems should be controlled before pregnancy begins. Disorders such as high blood pressure or diabetes may require a change in medication or dosage. A number of medications, particularly the non-prescription, over-the-counter ones, should be discontinued.

Comprehensive care includes the following:

* A medical history, including family illnesses and results of previous pregnancies. This information helps the doctor by suggesting things to look for and watch closely.

* A physical examination, including heart and respiratory systems, and pelvic measurements.

* Laboratory tests, including Papanicolaou smear, syphilis and gonnorrhea tests, blood chemistry, urinalysis, RH typing and blood typing.

* A test for tuberculosis.

* A dental evaluation. Untreated cavities can spread infection to other parts of the body.

* Regular visits to the doctor — at least monthly during the first six months; at least twice a month during the seventh and eighth months; every week during the final month.

* If problems are detected during any of these visits, more frequent visits may be required.

* An essential part of prenatal care is counseling and health education. This is a good time also for education in infant and child care.

Infant and child health begins with prenatal care.

Planned Parenthood Photo

The Normal Pregnancy

Despite the number of tests made and questions asked by obstetricians, the life of a pregnant woman has been greatly simplified by advances in medicine.

> With the observation of large numbers of healthy women — previously doctors only saw them when they were ill — the attitude toward pregnancy changed. In the sixteenth and seventeenth centuries, pregnancy was always considered abnormal, and from its very inception the most complicated measures had to be employed to prevent dangerous complications. Now we realize that pregnancy is a normal, simple, physiologic state, and ordinarily all that need be done is to maintain the women in good physical condition by the enforcement of an uncomplicated, common-sense regimen. (Alan F. Guttmacher, *Into This Universe*)

Among the needless fears preached to women in the past:

* *The fear that exercise, horseback riding, climbing stairs, or sexual intercourse might cause miscarriages.* Such myths are difficult to argue against, because every woman who miscarries can find some such incident to blame. The great majority of miscarriages are due to fetal abnormalities. Most defective fetuses simply fail to develop far enough to be born alive — a fact usually regarded as a blessing in disguise. If, for some reason, an individual woman has a tendency to miscarry, her doctor may suggest precautions, which can be helpful in some instances.

* *The fear that unpleasant sights, sounds, thoughts, or emotions could "mark" a child, or cause a deformity.* Such fears still plague women, particularly among the uneducated.

* *The fear of taking baths, particularly hot baths.* A few centuries ago, even educated physicians believed that steam or hot water could injure the fetus or cause premature labor. Today, daily baths are encouraged until the eighth month of pregnancy. After the eighth month, showers are recommended to lessen the chances of infection.

* *"Each child a tooth" is a saying that has not died.* Dental problems during pregnancy are primarily due to inadequate hygiene, failure to visit the dentist, and calcium deficiency — all of which are preventable.

* *Fear of sleeping on one's back or stomach.* Actually, as long as the mother is comfortable, the baby cannot be harmed or "crushed."

* *Fear of eating lemons, oranges, grapefruit, cheese, or milk.* These sources of vitamins and calcium would be hard to replace if left out of a diet.

* *Fear of getting fat.* The average and recommended weight gain during pregnancy is 24 to 30 pounds, about half of which occurs during the last three months. Attempts to prevent this normal weight gain could endanger the health of both the mother and child.

Among the harmful beliefs about pregnancy:

* *Drinking wine makes good blood.* Wine has no nutritional value — just "empty calories."

* *You have to eat for two, so eat twice as much.* Actually, the calorie demand during pregnancy is raised by about 10%. The expectant mother should be concerned not with eating more, but with eating better quality foods. This is because increased amounts of protein, calcium, iron and vitamins are required.

* *If you had no trouble without prenatal care for your first baby, you will be safe with later ones.* Some problems become more likely in later pregnancies.

* *Older women who have been through it are the best advisers.* Every pregnancy is different. One women can experience only a few births, but a doctor sees thousands. Chances are the doctor has seen more women in your condition than all your relatives and friends. A calm, reassuring friend is a friend indeed, but a person who raises needless doubts and fears is someone to be avoided.

A 16th Century delivery — Although health care has improved dramatically, women are still plagued with fears and misinformation from past ages. And new myths are still being created — such as the Zen Macrobiotic diet, which can ruin the health of a pregnant woman and her child.

Nutrition and Pregnancy

A healthy well nourished woman is more likely to have a successful outcome of pregnancy. There is some evidence that undernutrition during pregnancy may influence the intelligence, resistence to disease and size of the child.

When pregnant, the expectant mother is eating for two, but it does not mean she should increase the **amounts** of food eaten. She does need some additional food especially during the later months of pregnancy as the baby is rapidly growing. It must be food with high amounts of protein, vitamins and minerals, not just any food which will add weight without giving the necessary nutrients.

Weight gain during pregnancy should be a gradual, regular increase. If an expectant mother tends to gain too rapidly, the physician and nutritionist may ask her to limit certain foods or use different preparation methods. No food should be restricted without the knowledge of the physician.

Only a few decades ago it was believed that a baby would develop normally regardless of what was eaten by the mother. Thanks to research we now are aware that pregnancy has a better chance of a successful outcome if the mother is well nourished.

The following gives some guidelines as to the foods which should be included in meals every day.

Milk or milk products, such as cheese (3 or more cups daily)

Milk has calcium for the formation and strength of bones and teeth. It also provides protein and vitamins.

Citrus fruits and juices (1 serving daily) This includes oranges, grapefruit, tomatoes, strawberries and canteloupe)

Citrus fruit has vitamin C, a vitamin needed every day.

Meat, poultry, fish, eggs, dried beans and peas (2 or more servings daily)

Meat has protein, vitamins and minerals needed to build strong bodies.

Vegetables and Fruits (3 to 4 servings daily)

Include dark green and yellow vegetables.

Vegetables and fruits are a good way to get vitamins and minerals. They also add bulk to meals which helps digestion.

Education in nutrition is an important part of prenatal care.

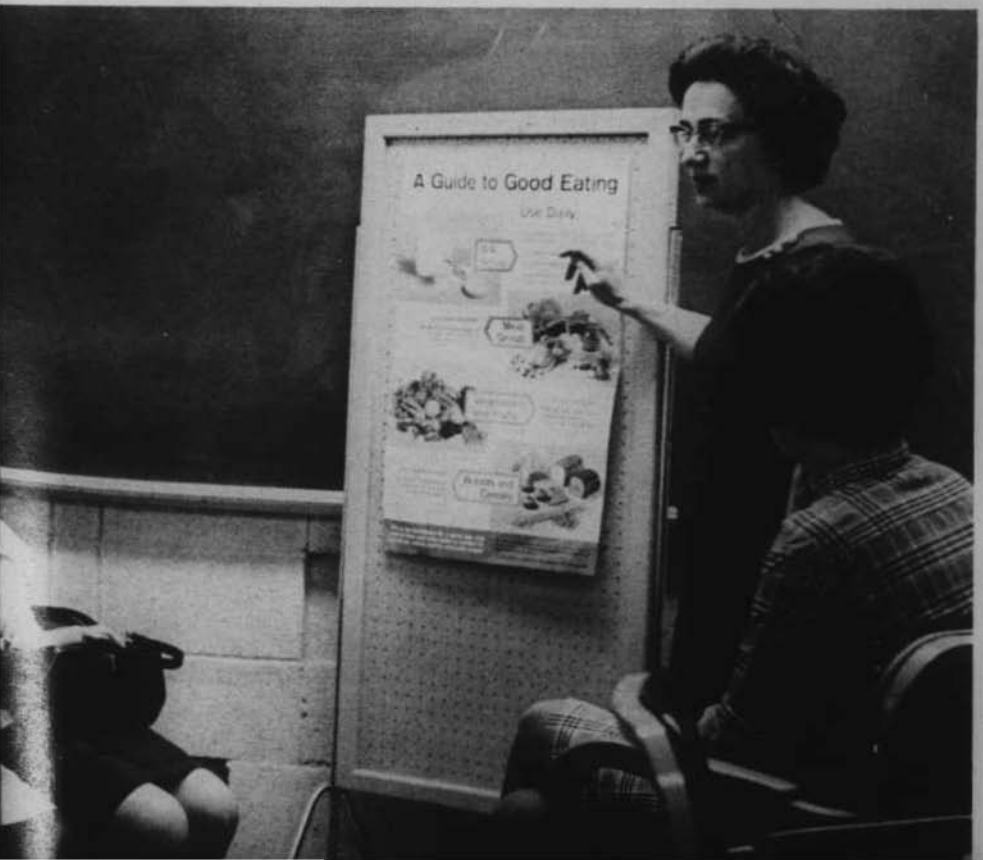
Enriched and/or wholegrain bread and Cereals (4 or more servings daily.)

Bread and cereal should be enriched or whole grain. This group includes macaroni products and rice.

Enriched or whole grain products provide iron, vitamins and protein.

Meals and snacks should be eaten with a plan that makes sure the necessary foods are eaten as needed each day.

Some doctors will ask the expectant mother to take vitamin and iron tablets, but these do not take the place of well planned healthy meals.



Drugs and Pregnancy

A few decades ago doctors believed that a developing fetus was protected by the "placental barrier" from drugs or diseases that might affect the mother. This view has been drastically modified. Syphilis can infect the unborn child at any stage of development, resulting in miscarriage or deformity. Rubella (German Measles) can damage the baby if the mother contracts the disease during the first three months of pregnancy. During the early 1960's the tranquilizer, thalidomide, was discovered to cause deformities in the developing fetus.

Women who are pregnant, or who might be pregnant, should think twice before reaching for an OTC (over-the-counter) remedy.

Unfortunately, not much is known about the safety of various drugs, and the following precautions should be observed:

- No chemical has been proved to be entirely harmless for all pregnant women and their unborn babies during all stages of pregnancy. Therefore, do not take any drug unless there is a specific medical need for it. Be especially careful in the first trimester of pregnancy and just before delivery.

- If there *is* a medical need, and if your physician prescribes a drug to meet that need, take it only in the amounts and at the times specified. Do not increase or lower the dose; do not discontinue usage sooner or continue it longer than directed. Remember that your unborn baby's health can be adversely affected by your failure to take a needed drug, as well as by your indulgence in unprescribed medication.

- A number of drugs exert their adverse effects during the first weeks following a missed menstrual period — the weeks when you are likely to be wondering whether you are pregnant. Therefore, if pregnancy is a possibility, discontinue all self-prescribed remedies within a few days after an expected menstrual period fails to occur, and recheck with your doctor concerning drugs previously prescribed for you. If you are trying to become pregnant, be sure to tell your doctor this if a drug is prescribed for you.

- During pregnancy and also during the time you may wish to become pregnant, curtail the use of OTC "home remedies," as well as drugs available only on a doctor's prescription.* Even common self-prescribed medicines, such as aspirin, should be taken sparingly — except on your doctor's advice.

- Interpret the term "drugs" broadly to include many things besides oral preparations and injections — for example, lotions and ointments containing hormones or other drugs that may be absorbed through the skin, and vaginal douches, suppositories, and jellies.

* Mothers who breast-feed their babies should continue to avoid the use of medications as much as possible. Numerous drugs taken by the mother are excreted in her milk and reach the nursing baby. If you are nursing your baby, be sure to report this to your family doctor should medication happen to be prescribed.

The Chain of Ignorance and Poverty

The benefits of modern health care do not reach everyone equally. More importantly, they do not equally reach the very young, who cannot be held responsible for their lives.

Poor people have been held in their places by a chain of events which begins before they are born. As parents, they have not received adequate medical care, either through ignorance, or because it is too expensive.

In poor families, almost twice as many infants die as in middle-income families. This is true regardless of race, but it falls most heavily on black families, since more of them are poor. Infant mortality also increases drastically for parents who have not finished high school.

Not only do more infants die in poor families, but those who live are more likely to be mentally or physically handicapped due to avoidable birth problems. Nutritional deficiencies, beginning before birth and remaining uncorrected, contribute to a general lack of good health. Poor children are sick more often, miss more days of school, and have less reserve energy for catching up.

Researchers have long suspected that nutritional deficiencies might lead to brain damage or lowered intelligence. Such effects are now being studied in animals, and in human populations suffering from severe protein-calorie malnutrition. Severely undernourished or malnourished infants generally come from homes that combine ignorance and poverty. It is not possible to say which of these factors contributes most to the children's poor school performance.

The Certified Nurse Midwife is a Registered Nurse who has completed an extensive course of training in the management of pregnancy. The nurse-midwife is allowed to attend only normal deliveries.

The children of the poor, in general, do not do as well in school as children from more advantaged homes. Failure in school usually leads to low-paying jobs and another cycle of poverty.

Breaking the Chain

Prenatal care has long been a concern of Florida public health, but adequate programs are relatively new. In 1894, shortly after the State Board of Health was formed, *Health Notes* called attention to the need for prenatal care. But not until 1918 was the Bureau of Child Welfare established. This bureau had the modest goals of registering expectant mothers, providing them with educational material, and encouraging the construction of maternity wards and hospitals. The early efforts of this bureau were aided by women's clubs, and much of the work was carried out by volunteers.

During the 1920's and 1930's Federal aid (5,000 dollars per year in matching funds) enabled the work to continue, despite a budget cut. During these years, as much as one-third of the state was served by a single nurse. Due to this shortage of personnel and funds, the prenatal care of many women in the program was limited to educational letters — different series being mailed to those who planned hospital delivery and to those who planned midwife delivery.

Since then, a wide variety of programs have been developed to improve prenatal care:

* Educational films, pamphlets, and bulletins.

* An emergency program during World War Two, to provide care for wives of servicemen in the lower pay grades.

* Postgraduate training programs for nurses and physicians.

* An annual obstetric-pediatric seminar for physicians, nurses and public health workers.

* A teacher training project, involving observation of local health facilities.

* Migrant health projects.

* Maternity services for low income women through county health departments.

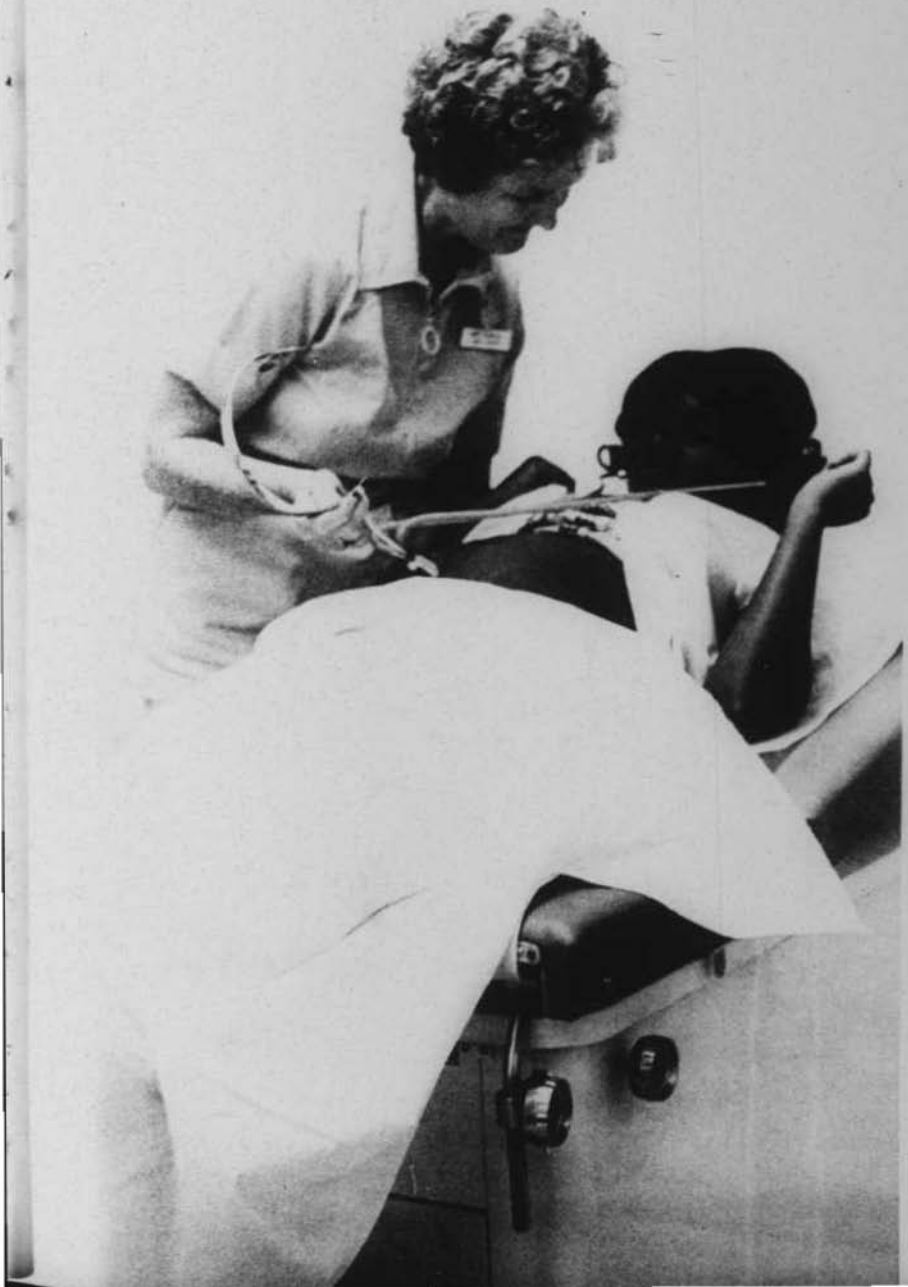
* The Public health nursing program, which provides for home visits, guidance, classes in nutrition, personal hygiene, exercise, infant care, and family planning.

* The Nutrition Program, providing diet counseling for maternity patients and guidance in family meal planning and consumer economics.

* The Supplemental Food Program for Women, Infants and Children (WIC) enabling low income women to purchase recommended foods.

* The certified nurse-midwife program, which supervises the training and licensing of registered nurses to perform the added services of prenatal care and delivery. The certified nurse-midwife takes charge of maternal care after an initial examination by an obstetrician — so long as the pregnancy begins and remains normal.

Complete prenatal care involves a medical history, physical and dental exams, and treatment of any disorders. Such care has been shown to have a major effect in reducing infant and maternal mortality.



MIC — Maternal and Infant Care

Although county health departments all share the goal of providing medical care for pregnant women who cannot otherwise obtain it, the most comprehensive programs have been the recently developed MIC programs. Five such programs, partially funded by the federal government, have been developed in Florida.

The purpose of these programs has been to reduce the number of infant and maternal deaths, and to reduce the frequency of birth defects and mental retardation. To meet these goals, the programs have attempted to deliver adequate medical care, including: complete prenatal care, hospital delivery for those with medical complications, and follow-up care for mother and child during the first year. Specific goals include:

* Increasing the number of maternity clinics.

* Bringing maternity clinics into neighborhoods where the patients live, so that high-risk patients will receive services.

* Adding qualified personnel to improve the quality and standards of care in clinics and in the patients' homes.

* Making available a broad spectrum of diagnostic and consultation services (obstetrical, gynecological, surgical, etc.)

* Providing hospitalization during prenatal, labor, delivery and postpartum periods in hospitals staffed and equipped to provide a high standard of care.

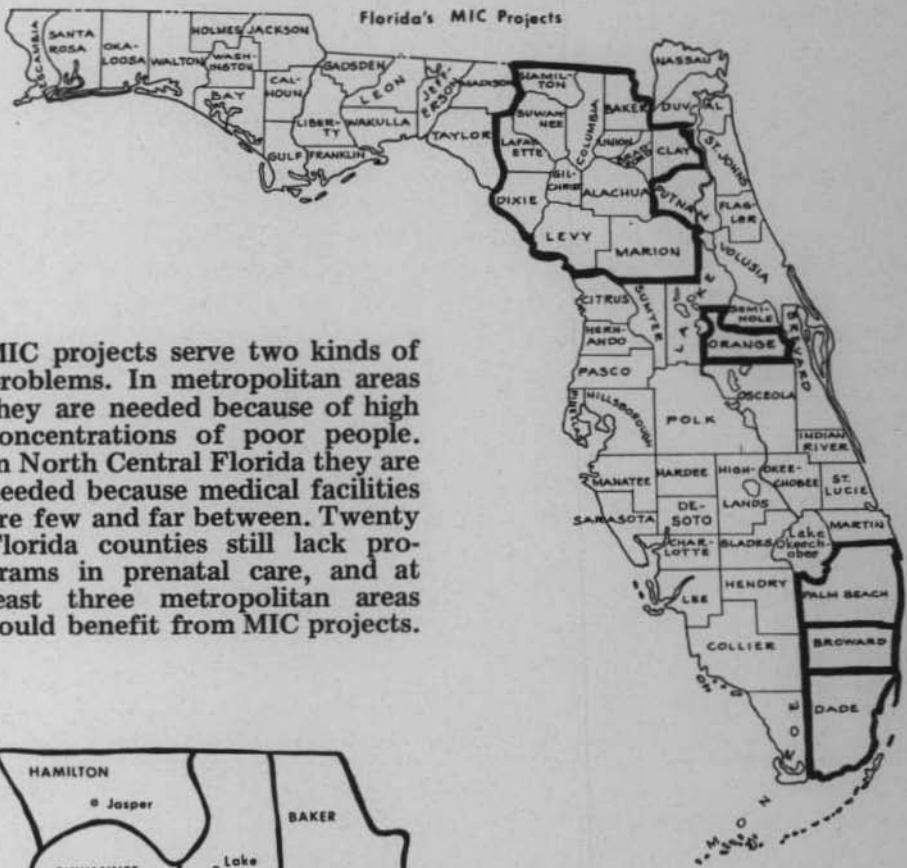
* Making available services to meet the special needs of the young teenager and adolescent.

* Providing public health nursing, medical social work, nutritional services, and other health services.

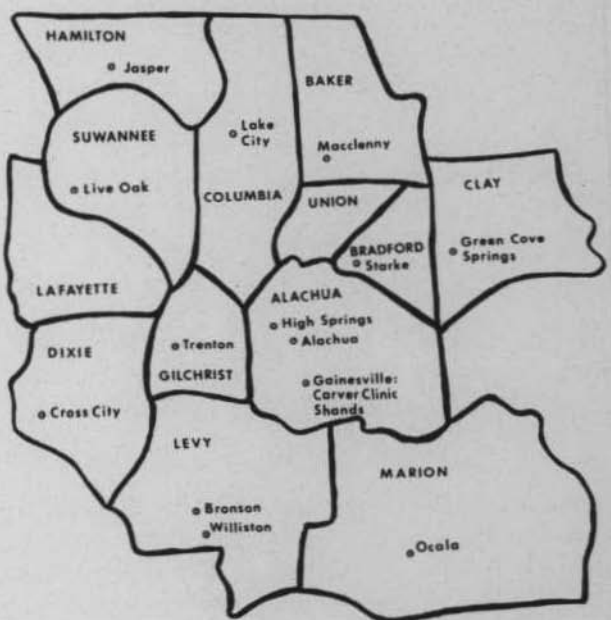
* Providing dental care.

* Providing and securing other services, such as homemaker services and transportation.

The programs in Dade, Broward, Orange, and Palm Beach counties serve metropolitan areas. These areas have high concentrations of poor people, who have consistently had the highest rates of problem pregnancies. The fifth program, called the North Central Florida MIC Project, includes 13 counties that are mostly rural. Problems in these counties arise primarily because medical facilities are scarce and the distances between hospitals are great.

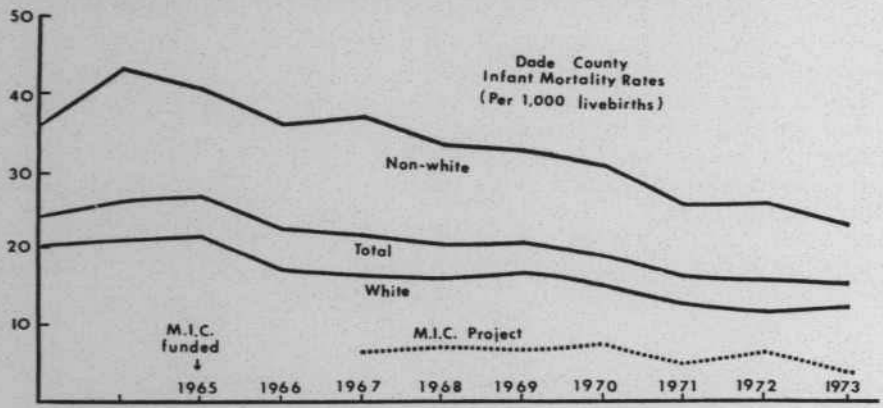


MIC projects serve two kinds of problems. In metropolitan areas they are needed because of high concentrations of poor people. In North Central Florida they are needed because medical facilities are few and far between. Twenty Florida counties still lack programs in prenatal care, and at least three metropolitan areas could benefit from MIC projects.



Proof of Effectiveness

There is now unmistakable evidence that prenatal care and hospitalization of high-risk patients produces good results. In the areas served by MIC projects infant mortality has dropped dramatically. In fact, the high risk patients of some MIC projects have better pregnancy outcomes than the average for their counties as a whole. Compared to mothers with similar economic and social backgrounds, MIC patients in Dade County suffered nearly 60 per cent fewer infant deaths. Maternal, fetal, and newborn deaths were also reduced. Other MIC projects have had similar success.



Problems for the Future

The MIC projects have demonstrated what can be done, but they have also pointed up a number of critical unmet needs. Twenty Florida counties have no prenatal care or delivery service programs, and at least three additional metropolitan areas would benefit from MIC programs.

The funding of these programs has a direct bearing on the number of patients that can adequately be served. In Orange County, for example, a decline in funding during 1973 was reflected by an increase in mortality.

These are the problems currently facing the Division of Health and the county health departments. The programs have proven themselves effective; the problems are serious. The remaining question is whether we will apply the knowledge we have to their solution.

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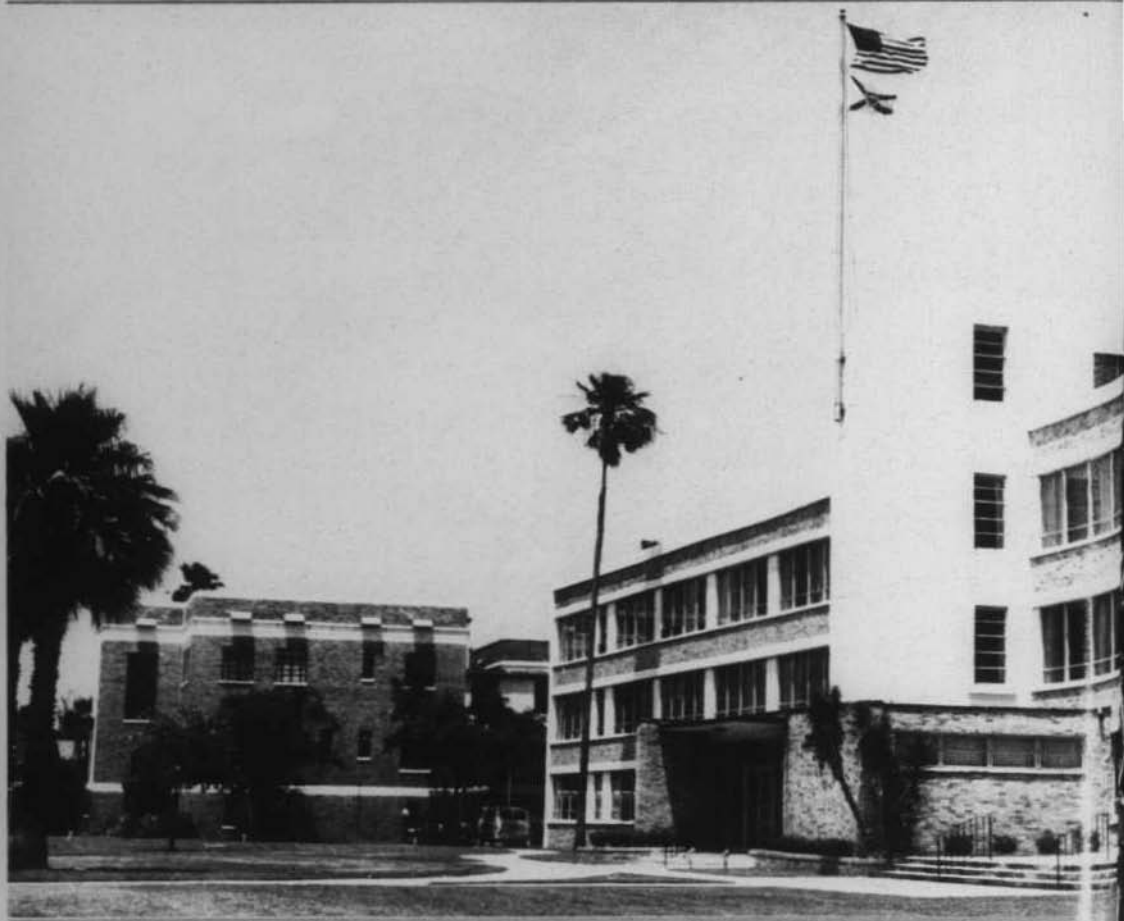

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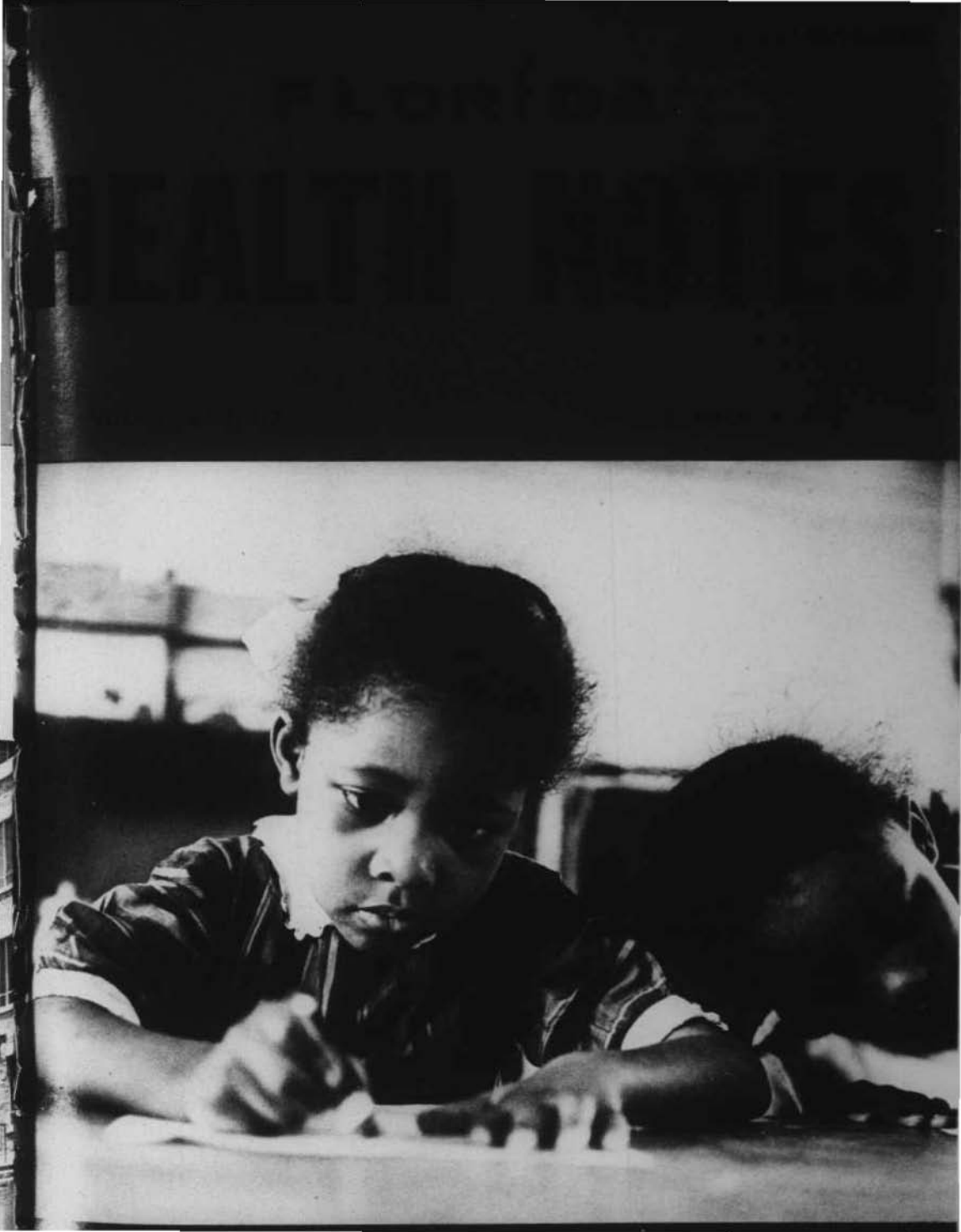
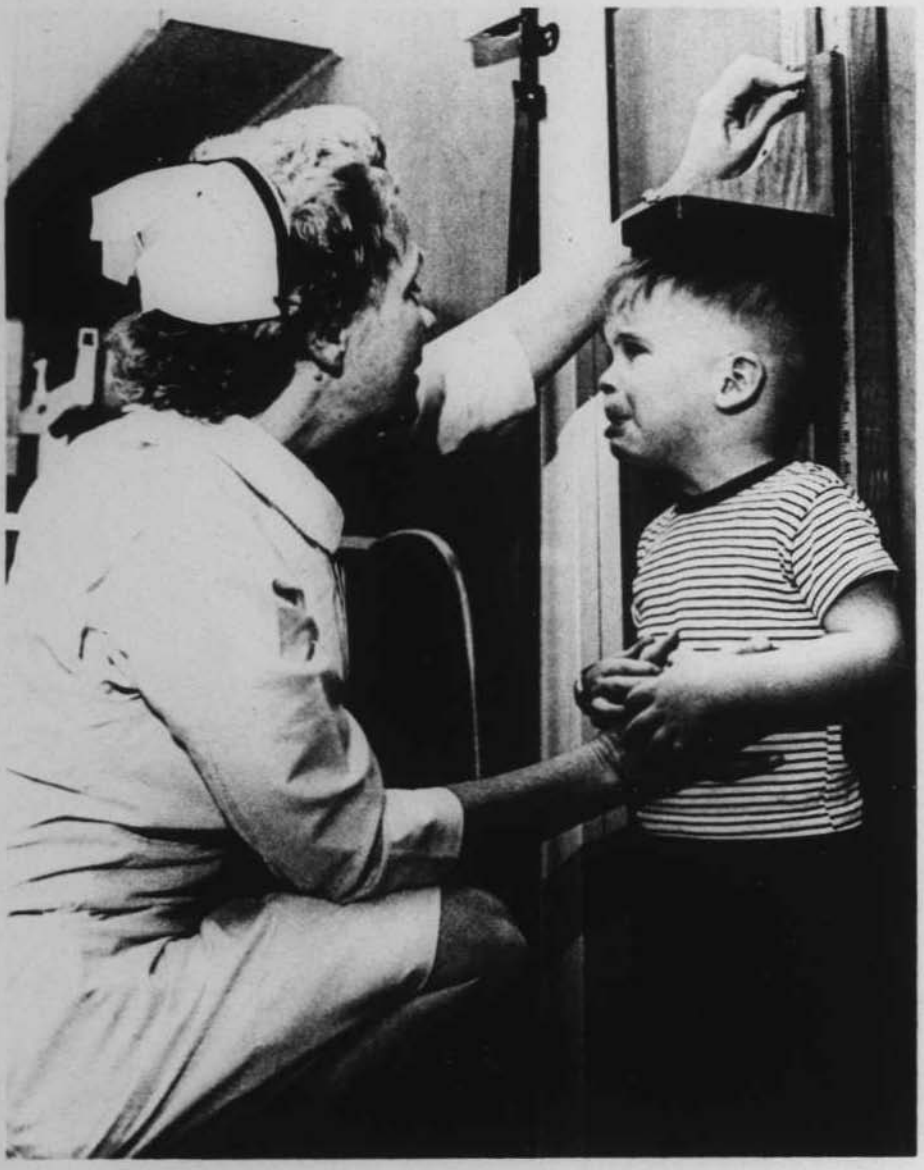


CONCENTRATION (Cover) — Schoolwork requires good health.

GROWING UP — A record of growth is one of many indicators of a child's over all health.



Infancy and early childhood, we are told, are the most happy and carefree years of life. The problems and worries of the world are far away. Everything is taken care of, and even the school has not yet intruded on the world of play.

Happy as this picture is, it is not quite real. For many children, the troubles of the world creep in. Things are not taken care of; even the essentials — food, clothing, shelter — are neglected. And thousands of Florida children receive little or no health care.

Infancy and early childhood are among the most dangerous years of life. Infectious diseases occur more frequently and are often more severe. Accidents are frequent and often fatal or permanently crippling. Malnutrition is all too common and, in some severe cases, can be permanently damaging.

Nearly all of these conditions are preventable: immunizations are available to prevent a number of dangerous diseases; most childhood accidents could be prevented by adult action; and nutritional aid is available.

Much has changed in the years since the State Board of Health (now the Division of Health) was founded in 1889. At that time an infant had only a 50:50 chance of surviving. "Diarrhea and Enteritis" was the leading cause of death. Malaria and hookworm were common debilitating disorders. Over the years the environment has been made safe for the physical health of children. The improvements in child health are remarkable, but further improvements are needed and possible.

The Division of Health seeks to promote the health of children through a number of programs. These programs involve case finding, prevention of disease, and health education.

Case finding includes a number of screening programs, some of which begin before the child is born. Expectant mothers are examined for conditions which could impair the health of the unborn child. Prenatal care programs are administered by the Division of Health, through the county health departments, in such forms as the Maternal and Infant Care Projects. Prenatal care insures that each child will have the best possible start in life.

Other screening programs include testing newborns for phenylketonuria (PKU), testing infants and children for tuberculosis, hearing and vision deficits, dental caries, anemia and other nutrition problems.

Prevention includes immunization, environmental sanitation, and quarantine. Florida law requires each child to be immunized against communicable diseases before entering school, unless exempted for medical or religious reasons.

Health education is carried on in several ways: through radio, television and newspapers; through clinics for the medically indigent; through the public schools.

There is a famous quotation, "as the twig is bent the tree's inclined." This can be taken in more than one way. A child who is "bent" by illness, crippling, malnutrition, or ignorance will be handicapped in life. But a child who is "inclined" toward good health habits can give more than he received.

Directly or indirectly, about one-third of the Division of Health's budget goes toward child health. It is money invested in the future. This issue of *Florida Health Notes* will tell about this investment.

FLORIDA HEALTH NOTES

Published monthly by the Division of Health (E. Charlton Prather, M.D., M.P.H., Director) of the Florida Department of Health and Rehabilitative Services. Publication office, Florida Health Notes, 1217 Pearl St., Jacksonville, Florida 32201. Second Class Postage paid at Jacksonville, Florida. Printed since 1892, this publication is for individuals and institutions with an interest in the state's health program. Permission is given to quote any story providing credit is given to the Division of Health.

International Standard Serial Number—US-ISSN-0015-4105

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Post Office Form 3579 should be mailed to Box 210, Jacksonville, Florida 32201.

VOLUME 67, NO. 2 FEBRUARY, 1975

Child Health in Florida

In Florida, concern for child health dates back as far as concern for public health. Early priorities centered on communicable diseases, such as yellow fever, diphtheria, tuberculosis and hookworm. Smallpox, for example, was preventable by vaccination, but large numbers of people resisted vaccination.

Dr. Porter, the first state health officer, felt so strongly about smallpox vaccination that he took a leave of absence from his job in 1901 to urge the state legislature to pass a compulsory vaccination law. The law was not passed, but public opinion eventually changed, causing most people to seek protection against smallpox. The victory over this killer disease has been so complete that routine immunization is not considered necessary at the present time.

Many of the other communicable diseases have been reduced in frequency and are now lower in priority in public health. The danger exists, however, that public apathy over these diseases is leading to fewer children being immunized and greater danger of epidemics.

In 1915 the Florida legislature passed a law providing for medical inspection of schoolchildren, but it did not provide funds to carry out the program. In 1918, the State Board of Health established the Bureau of Child Welfare. Assisted by the Florida Federation of Women's Clubs, it registered expectant mothers and provided them with educational materials. It developed preschool clinics, infant welfare stations and milk depots to distribute milk to indigent families.

In 1921, the U.S. Congress created the Children's Bureau, which over the years has provided Florida with millions of dollars for maternal and child health programs. These programs were expanded in 1935 by the Social Security Act. In 1936, The State Board of Health established the Bureau of Maternal and Child Health. This bureau supervised prenatal, infant and child care programs until 1972. At that time the Child Health Section was created to function separately from the Bureau of Maternal Health and Family Planning. The two units, however, continue to keep close ties in all their programs.

Child Health at the Grass Roots

The Division of Health has as its major operating arm a 26-million dollar county health department system with units in every county. These local health departments have clinics in nearly every small community and large city neighborhood. Through these clinics and health centers, public health workers can reach out to nearly every home on every city street or back country road.

The staffs of the county health departments, working directly with the families, include some 1,200 public health nurses, 600 sanitarians, 40 sanitary engineers, 180 physicians, 50 public health dentists. In addition there are community health workers of various races and national origin who serve as liaison with the community. Clerks in the offices keep records and correspondence relating to the child health programs.

Backing up the staffs of the county health departments are the consultants of the Division of Health (pediatricians and other physicians, public health nurses, sanitarians, health educators, nutritionists, statisticians, epidemiologic field workers, microbiologists, chemists and many other specialists) who all work to make this a better world for children and youth.

SCHOOL SANITATION — The county health department sanitarians check school lunch kitchens for cleanliness.

Serving 2.4 Million Children and Youth

Children and youth under 21 make up 35 per cent of Florida's population. The Division of Health and county health departments are available to all 2.4 million children and youth. Naturally the health agencies do not have the staffs to serve all of the youngsters; but they do see tens of thousands in clinics, schools, and family homes. They immunize hundreds of thousands against communicable diseases each year.

The Division of Health serves as liaison with other state agencies and voluntary health organizations in the areas of children's health. It plays a coordinating role with many agencies and works toward a harmonious effort for a continuous program throughout the years of children's growth and development.

Preparation for the birth of the child is important. Public health physicians and nurses see expectant mothers in prenatal clinics. The mother's health is supervised so that her child will have a chance to be healthy and obtain a good start toward a better life. Supervision, including a complete physical examination and laboratory work, is provided throughout the entire maternity cycle. Notice is taken of any complications which may interefere with a normal birth. Guidance is given to help mothers make plans for delivery, either by a physician or nurse-midwife. After delivery, the whole family is given follow-up care.

Five Maternal and Infant Care Projects (four in metropolitan areas and one in a rural area) have been set up to detect those births that are high risks to mothers and infants.

Some of the more than 520,000 preschool children — five years old and younger — are given services in well-child clinics. In addition, there are some 1,600,000 schoolchildren and youths between the ages of six and 18 years who also require periodic medical examinations and screening tests. Some school-age students, as well as older youths, require care in venereal disease clinics. And because there are now so many pregnant school girls, some counties have clinics to deal with their special problems.

The Role of the Division of Health

The Division of Health has a number of programs and studies especially for children and youth that are located in several Bureaus and Sections. In addition, many of the bureaus and sections of the health agency are engaged in other public health problems in behalf of the people of Florida. These activities are not specifically oriented toward children and youth, but the youngsters are important recipients of the services.

* The Bureau of Vital Statistics, for example, while not especially for children, recorded some 107,000 live births to Florida residents in 1974. It collected statistics on deaths, stillbirths, and adoptions. The Bureau also issued some 42,000 Birth Registration Cards.

* The Public Health Statistics Section provides statistical support and consultation to all bureaus and sections. It also analyzes data obtained from vital records and special studies.

* The Bureau of Laboratories provides laboratory services as back-up to physicians and county health departments for many medical problems. Those that directly affect children and youth include: tests for anemia (hemoglobin and hematocrit), intestinal parasites, Rh incompatibility, phenylketonuria (PKU), sickle cell and other hemoglobinopathies, narcotics, sanitary quality of food and drinking water. They also include viral diagnostic services (including viral isolations), bacteriology (tubercle bacilli, staphylococci, streptococci, shigella and other enteric pathogens, and lactobacilli in saliva).

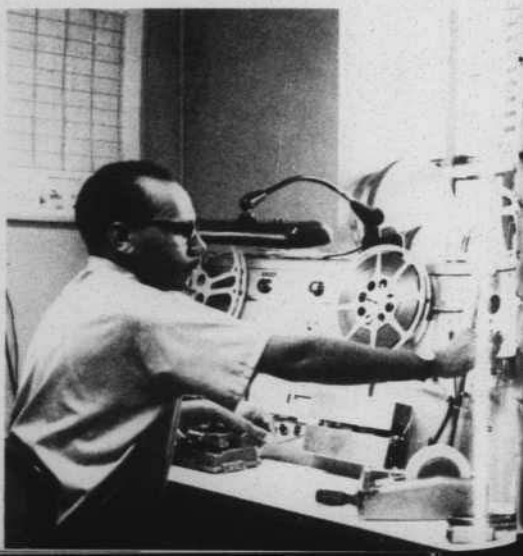
* The Planning Section of Administration coordinates all plans for children's health programs and searches for improved funding for these programs.

* The Bureau of Health Facilities carries out hospital licensure programs that include space reserved for newborns and for pediatric areas.

* The Bureau of Adult Health and Chronic Diseases, although mostly concerned with adults and the elderly, has projects underway that are relevant to high blood pressure in children, juvenile diabetes, and rheumatic fever. The Ruthenburg Fund, which the Bureau administers, assists youth with problems in speech and hearing.

* The veterinary Public Health Section promotes the vaccination of dogs and cats against rabies to protect both children and adults.

* The Health Education Section provides the county health departments with educational materials, including *Florida Health Notes*, pamphlets and program promotional aids. Its audio-visual library distributes movie films to schools and to other groups. These educational aids are seen by some 2,000,000 people per year. It promotes professional growth with a library of almost 27,000 scientific texts and journals, and subscriptions to 450 professional journals.



MAINTAINING THE FILM LIBRARY — Part of The Division of Health's education program is a lending library of 16mm films.

* The Bureau of Tuberculosis Control guides the county health departments in screening thousands of children every year for tuberculosis and provides hospital care and prophylaxis, if needed.

* The Bureau of Preventable Diseases supervises and promotes the regular immunization programs, mass campaigns, and venereal disease clinics. It keeps records on communicable disease and studies the epidemiology of serious diseases and epidemics. Communicable diseases that affect children, such as rubeola (red measles), rubella (German measles), pertussis, mumps, and diphtheria, are of special interest to the Bureau. When the number of cases reported exceeds the normal limits in one geographical area, it immediately draws the attention of the epidemiology teams of the Division of Health and county health departments. Also included in the Bureau's interests are safeguards for newborns, eye prophylaxis, and the control of hospital infections and intestinal parasites.

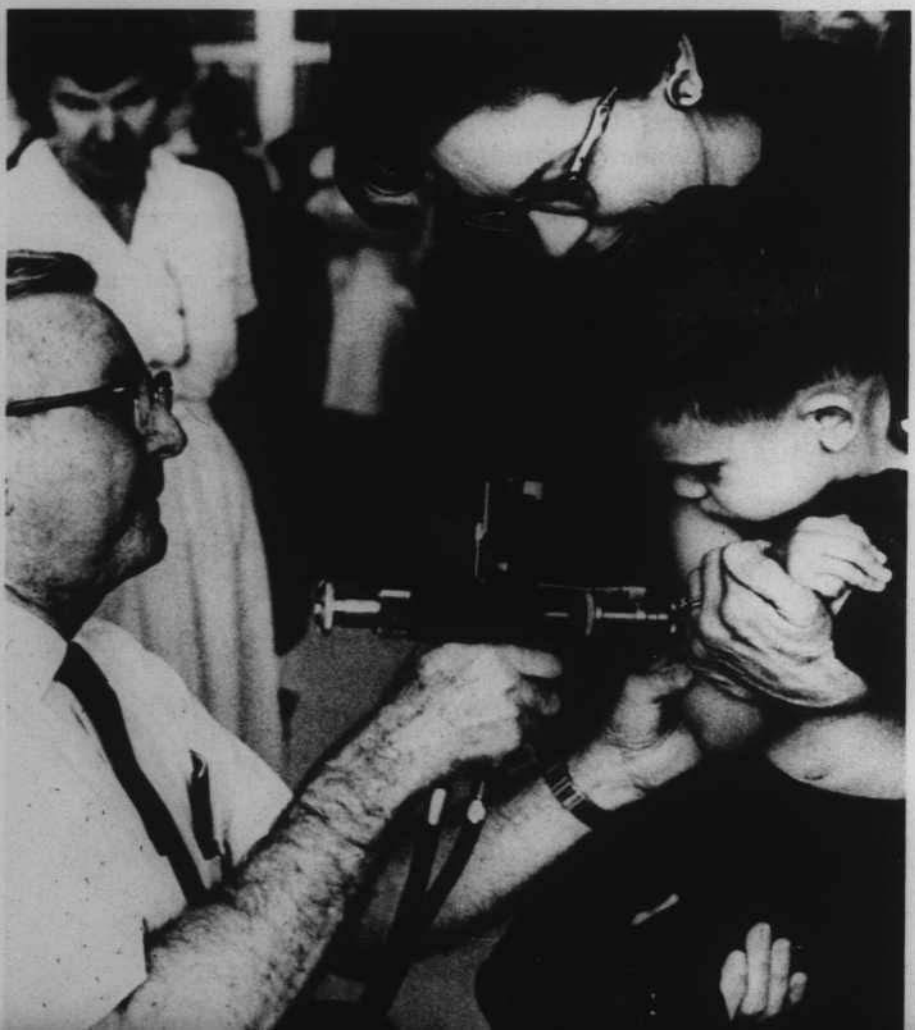
* The Public Health Nursing Section, the Sanitation Section, the Nutrition Section, and the Bureau of Dental Health all provide consultants' services to county health departments to help with many kinds of problems involving children and youth.

NUTRITION — The nutrition consultants and the health educators work to see that schoolchildren learn the facts about good eating.

Preventable Diseases and Immunization

Children are still suffering from unnecessary diseases. The common childhood diseases — Measles, Rubella (German Measles), and Mumps cannot only be prevented by immunization, but should be. Most people think of these diseases as nuisances; they are not aware of how serious the consequences can be. Measles, for example, can develop into encephalitis and cause brain damage. Rubella can be transmitted to pregnant women, resulting in congenital defects. Mumps can cause sterility in adult males.

Pertussis (Whooping Cough), Diptheria, Tetanus (Lockjaw), and Polio are the "serious" childhood diseases preventable by immunization. Only one disease, Smallpox, appears to be sufficiently under control so that immunization can safely be omitted.



All of these diseases are serious. Even if only a few children suffer serious consequences from Measles, it is still cheaper and far more humane for everyone to be immunized.

Unfortunately, the rarity of these diseases works against the goal of universal immunization. When Polio vaccine was new, and people remembered the horrors of crippled children, it was easy to persuade people to be immunized. Now Polio is rare, but the percentage of immunized preschool aged children gets smaller every year.

To combat this tendency toward neglecting immunizations, Florida has a program which is designed to improve immunization levels of infants and young children up to age two. This Infant Immunization Surveillance System permits county health departments to routinely remind parents of 3 month old, 12 month old, and 18 month old children to have their children immunized. These reminders are in the form of mailouts. In addition, each county maintains a Registry of all children up to age two. The Registry is periodically updated to keep reported immunization information current. In the larger counties an annual assessment of these Registries permits a detailed analysis of overall immunization levels of two year old children, geographic areas where immunization levels are less than optimal, and the scheduling and conducting of intensive neighborhood immunization programs to eliminate "clusters" of unimmunized preschool children.

For children who are not immunized in infancy, Florida has a Compulsory Immunization Law, which requires that all children be immunized prior to entering kindergarten or first grade. Children are exempted only for medical or religious reasons. An aggressive enforcement of this law has yielded high immunization levels (above 90% in most counties) in elementary schools. However, the systematic follow-up of infants and preschool children is even more important to assure that their immunizations are not neglected. Since we no longer have periodic outbreaks of vaccine preventable diseases in schools which stimulate mass immunization programs, a program to assure that children are routinely immunized is a must.

Nutrition

More attention needs to be paid to the nutrition of children, particularly during infancy, the preschool years, and adolescence, because these are periods of growth and development. Many Florida children, while not actually hungry, fail to get the kinds of foods required for excellent health. The diets of these children may not supply the necessary vitamins, iron and protein.

Severe malnutrition has been demonstrated to affect brain development in laboratory animals, and nutritionists suspect that this result also applies to humans. It is known that malnutrition has its most severe and permanent effects when it occurs early in life.

Over the years the Division of Health has participated in a variety of programs designed to prevent malnutrition in children. Among the most recent is the supplemental food program for women, infants and children (WIC), which enables low income women to purchase recommended foods. The recommended foods are chosen for their vitamin, iron and protein content.

Nutritionists provide educational services for a variety of persons and agencies having responsibilities for the care of children. Among these are parents and guardians, school teachers, day care personnel, public health nurses, foodservice personnel, and the children themselves. They give individual diet counseling or group instruction to a large number of expectant mothers and families with infants, preschool and school-aged children. They hold classes and demonstrations on family nutrition, food selection, purchasing and preparation. They relate these to the best use of family financial resources. They hold workshops for public health personnel, teachers, foodservice workers and child day care personnel.

Nutrition education is a part of routine screening in child health clinics. Diet counseling is provided for children who are malnourished (iron deficiency anemia or growth problems), or require diet therapy for inborn errors of metabolism, diabetes, allergies, cystic fibrosis, heart disease, kidney conditions, weight problems, or other chronic handicapping conditions.

Direct Services to Youngsters

The Division of Health, at the state level, promotes service programs through the county health departments, and offers technical and administrative assistance. The grass roots work is carried on by county health departments, which provide an extensive range of children and youth health services in clinics and schools.

The public health nurses are the major providers of many child health and supporting services, including newborn follow-up and referrals, infant and child health maintenance clinics, school health and PKU screenings. They are assuming greater responsibilities in the areas of physical assessment and preliminary care.

Public health nurses and community health workers seek out children who need health services and make clinic appointments for them. Because many of the families who need to use the clinics have no means of transportation, some county health departments have volunteers, who pick up the youngsters, take them to the clinic, and return them to their homes. A few local health agencies maintain small busses for this purpose. A growing number of county health departments hold evening or Saturday clinics so parents who work during the day can bring their children during their off-hours.

During the year 1974, nearly 90,000 children and youth were seen in **well-child conferences.** They were examined and immunized. Mothers were taught what development changes they could expect and how to deal with them. In some counties iron and vitamins were provided. If additional medical treatment was indicated — as for intestinal parasites or incipient disease — the child could be treated, referred to another agency, or referred to a medical specialist.

Some children about to enter school or a Head Start Program are examined by **public health physicians.** Periodic examinations may be made throughout life.

Teachers are instructed by public health nurses on the various symptoms which may indicate a sick child. They often can tell when a child is ill, sometimes before the parents are aware of it. When a child appears sick, the teacher refers him to the school health room. The employment of trained school health aides, supervised by public health nurses, is becoming more widespread. They are helpful in the school health room while the decision is being made to return the child to class, or to call for his parents. The public health nurses provide follow-up until treatment is completed. They are aware of community resources and direct people to them.

A special **Children and Youth Project** provides medical care to children between one and six years of age in a large area of Dade County. Approximately 6,000 children were served in this project during 1974.

Vision and hearing screening tests are performed by county health departments — often with the aid of volunteers. During 1973-74, over 406,000 children and youths were screened for visual defects, and 212,000 for auditory defects. The Division of Children's Medical Services, Lions' Clubs, and other civic organizations were sources of assistance with the follow-up diagnosis and treatment of indigent children.

Two mental retardation projects (Dade Developmental Evaluation Clinic and Tampa Diagnostic and Evaluation Clinic) provided diagnoses and studies, evaluation and follow-up for 1,400 mentally-retarded children and youths last year.

Division of Health consultants and county health department staff members are involved in the licensing and/or inspection of child day care centers. The health agencies are involved because they desire to see that the children are cared for in a safe and healthy environment, that both the personnel who staff the centers and the children are in good health, with no communicable diseases; that the meals are nutritious; that there is no over-crowding of the youngsters.

The environment of children is important. Standards of school sanitation are set by the *Florida Administrative Code*. Sanitarians from county health departments inspect school buildings and playgrounds for safety, possible rodent and insect infestation, water supply, and waste disposal. School lunch rooms are inspected for cleanliness, proper operation, correct refrigeration, and safe foods. During 1973, sanitarians made over 4,639 visits to 1,665 schools.

Dental Services are provided in 30 counties to expectant mothers and indigent children and youth. Where public health dental clinics are not available, those in acute need are encouraged to seek private dental care. Over 58,000 youngsters were admitted for treatment in dental health clinics in 1974. Services included inspections, fillings, extractions, and applications of fluoride.

The federally supported programs for migrant farm laborers help supply medical services to **migrant children.** These include physical examinations, laboratory studies, hearing and vision correction, dental work through special clinics, and follow-up carried on by county health department nurses. The staff of the Division of Health's migrant programs also inspects migrant camps where children live. Camps that meet Division of Health standards are licensed to operate, and those that cannot be brought up to standards are closed.

The state and county health agencies also cooperated with the Department of Education in a "Migrant Education and Health Project" for children of migrant families. While the department of Education was responsible for the educational aspects of the program, the Division of Health and county health departments provided health services for the children and youth, including medical and dental examinations and treatment, glasses, hearing aids, prosthetic devices, and follow-up services.

The Child Health Section

The Child Health Section is that part of the Division of Health which coordinates basic child health programs: it promotes and assists in the expansion and improvement of clinics for infants, children and adolescents; it provides professional consultation, consultant services and assistance with screening programs in hearing, vision and hereditary disorders; it pays clinician's and nurse's fees, and it supplies equipment and materials for pilot programs and in cases of special need; the section has administrative responsibility for two Children and Youth Projects and two centers for the diagnosis and evaluation of children in whom retardation, or potentially retarding conditions are suspected.

Medicaid Screening (EPSDT) Program

Through the county health departments, the Child Health Section conducts medical and dental screening for children receiving AFDC (Aid to Families with Dependent Children). This is part of the Medicaid Early Periodic Screening, Diagnosis and Treatment (EPSDT) Program. The screening is done under a contract between the Division of Health and the Division of Family Services.

During the calendar year 1973, a total of 45,319 individuals were screened; of those screened, 29,549 required referral for further treatment or further evaluation. During the first half of the year, only those from birth through age six were screened; on July 1, 1973 the upper age level for eligibility was extended from six years through 20 years of age. This nearly tripled the previous case load, increasing it to approximately 210,000.

The most frequent reasons for referral include:

Incomplete immunizations	12,225
Peridental abscess	1,164
Other oral pathology (mainly caries)	8,869
Anemia (usually iron deficiency)	4,167
Obesity and other nutritional problems	532
Intestinal parasites	1,640
Poor vision	1,445
Poor hearing	520
Cardiovascular disorders	734
Orthopedic/musculo skeletal problems	723
Albuminuria	279

Urinary tract infection	95
Positive tuberculin reaction	203
Asthma	126

Medicaid Screening creates an opportunity for parents to have their children checked, when not ill, for evidences of problems which might otherwise go unnoticed. The screening tests are not diagnostic, but point to those people who should consult their own physician for further medical evaluation. Follow up services, provided by the Division of Family Services, include payment for treatment of medical problems and for special needs, such as eye examinations, eyeglasses, hearing aids, and dental services.

Inborn Errors of Metabolism and Sickle Cell Screening

In conjunction with Medicaid Screening came the beginning of a statewide voluntary Sickle Cell Program. Improved laboratory techniques have recently made possible simultaneous screening for other abnormal hemoglobins. Extension of eligibility through age 20 has allowed screening and genetic counseling for those approaching childbearing age.

Statistics indicate that about 3,000 babies are born in Florida each year with sickle cell trait, and between 50 and 75 of these will have sickle cell disease. Generally, those who have only the trait do not become ill. But parents who have the trait may pass it on to their children. If both parents have the trait, they may pass either the trait or the disease on to their children.

The Child Health Section provides and promotes inservice education in the field of hereditary and congenital disorders and defects, including inborn errors of metabolism (such as PKU) and hemoglobin abnormalities (such as sickle disease).

Hearing and Vision Conservation Programs

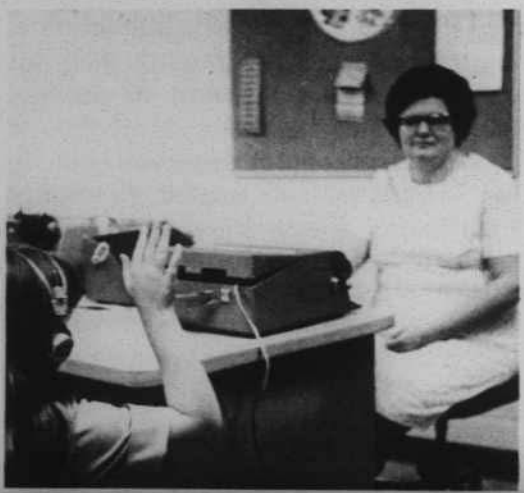
Hearing and vision screening programs are designed to pick out those children who need further testing, evaluation, or medical attention. The goal is early detection and treatment. In pursuit of this goal, emphasis is being placed on preschool screening and on follow up. The earlier a problem is detected and treated, the better the chance for a satisfactory outcome. Follow up procedures are required because the child whose problem is discovered in screening is not helped, unless he actually receives medical attention or treatment.

The screening programs are carried out through the county health departments, using public health nurses, school health aides, teachers, and volunteers. The use of volunteers increases the number of children that can be served, both in screening and in follow up. Through these programs more than 200,000 Florida children were screened last year for hearing loss, and the number receiving vision screening approached half-a-million. The goal in the school programs is to reach each child every year in grades K-3; and thereafter, the goal is to reach each child every two years for vision screening, and every third or fourth year for hearing screening.

The Child Health Section has participated in development of statewide standards for screening programs; it has also worked to help the counties meet these standards. The section has inservice programs for health department personnel, and it trains community volunteers to work with the children. The section maintains a loan closet of audiometers, so that each county always will have one available. The section checks the audiometers periodically for accuracy and makes minor repairs. There is also a small loan closet for vision screening materials.

The Medicaid Screening Program is making it possible to reach more children at the preschool level. This is uniquely important in the area of hearing. A child with a hearing problem is likely to have problems in learning language. In the past, many hard-of-hearing children were mistakenly diagnosed as mentally retarded. Such children will continue to be learning handicapped until screening programs reach all children in time for corrective action to be effective.

VOLUNTEERS — School hearing and vision screening programs are often aided by community volunteers.



School Health

Health education is a growing part of the school health program. The Comprehensive Health Education Act of 1973, which is administered by the Department of Education, reflects the efforts of the Department of Education, the Division of Health, and many other organizations and individuals. Its purpose is to develop a comprehensive health education program. Such a program proceeds sequentially from kindergarten through twelfth grade. It is designed to help children maintain and improve their health and to make wise decisions in difficult situations that affect their health. Children today are bombarded with advertisements for questionable health products, and with temptations to experiment with drugs or other forms of delinquent behavior. A health education program must deal with problems of goals and values, as well as with medical problems.

The Child Health Section also acts as liaison between the Division of Health and the Department of Education in the health services component of the school health program. It has been active in development of the State Plan for School Health Services, in preparation for statewide implementation of the School Health Services Act of 1974. This act requires joint planning by the Department of Health and Rehabilitative Services and the Department of Education. The Division of Health has been designated as having ultimate responsibility for conducting the programs required by this new legislation. The law became effective on January 1, 1975, and replaces Florida Statutes 230.23(6)(d), 230.33(8)(d), 232.29, 232.30, 232.31, and 232.32. It provides the opportunity for improved and more nearly uniform School Health Services in all areas of the state.

The Section participates in the activities of the School Health Advisory Committee. This committee began with the Florida Medical Association's Committee on Child Health. It now includes representatives from the Florida Chapter of the American Academy of Pediatrics, the Florida Pediatric Society, the Florida Dental Association, the Florida Academy of Family Physicians, Florida Association of County Superintendents, the Florida Association of County Health Officers, and from the Division of Health and the Department of Education.

The School Health Advisory Committee has made recommendations in a number of aspects of school health, including:

* Health instruction;
* Training of teachers for health education;
* Vision screening equipment;
* Dental screening equipment;
* Fluoridation of Florida's water supplies;
* School lunch programs;
* Drug abuse;
* Smoking and health;
* Physical examinations for school entry and for athletics;
* School health records;
* School health insurance;
* Equipment to prevent athletic injuries;
* School bus safety.

The Child Health Section prints school health records for distribution throughout the state. It has participated in the publication of *An Index: School Health Policies and Concepts*, which summarizes the activities of the School Health Medical Advisory Committee since its inception in 1959. Other publications, prepared jointly with the Department of Education, include *Bulletin 4-D: Health Programs in Florida Schools*, and *A Manual: Planning and Staffing a School Health Program.*

The section, through its staff, has provided leadership, consultation, or advice in a wide variety of other health related programs. These include Sudden Infant Death Syndrome (SIDS), Child Day Care Licensure, Child Abuse, Exceptional Child Education, and Early Childhood Development.

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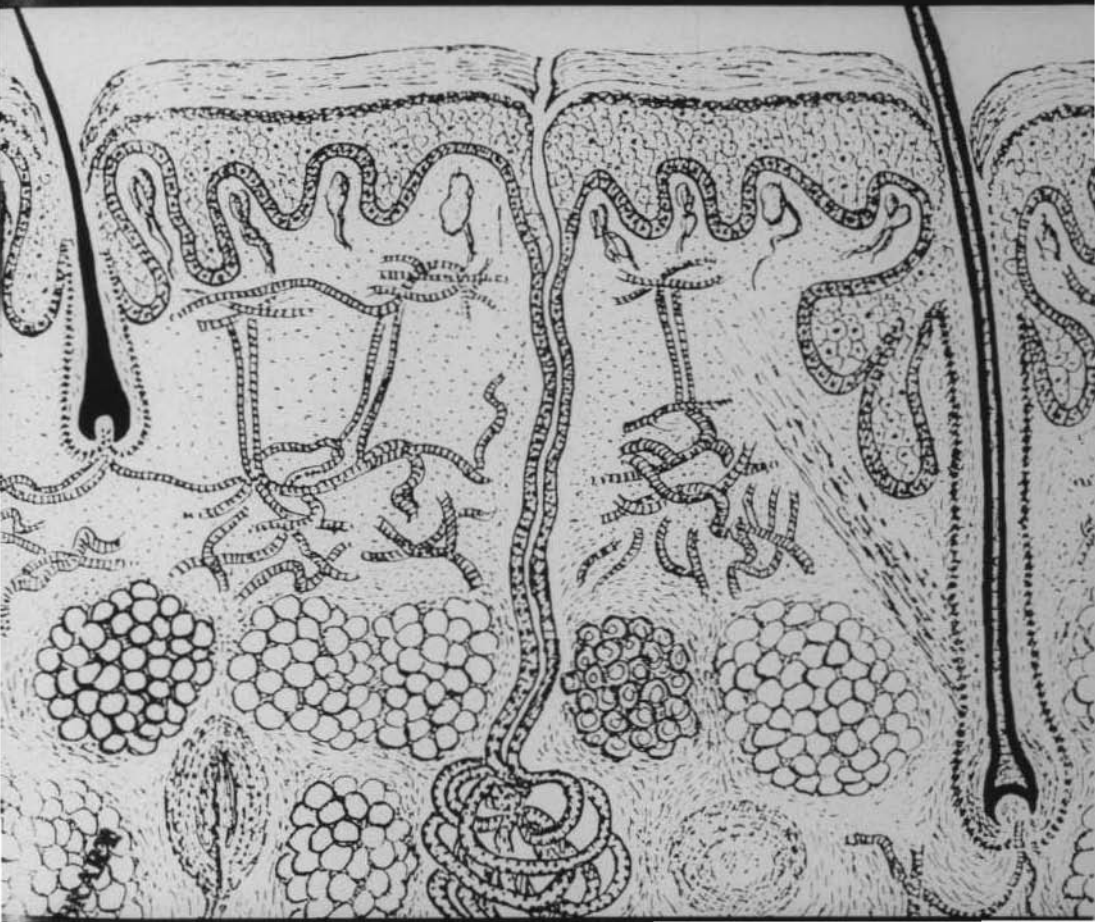
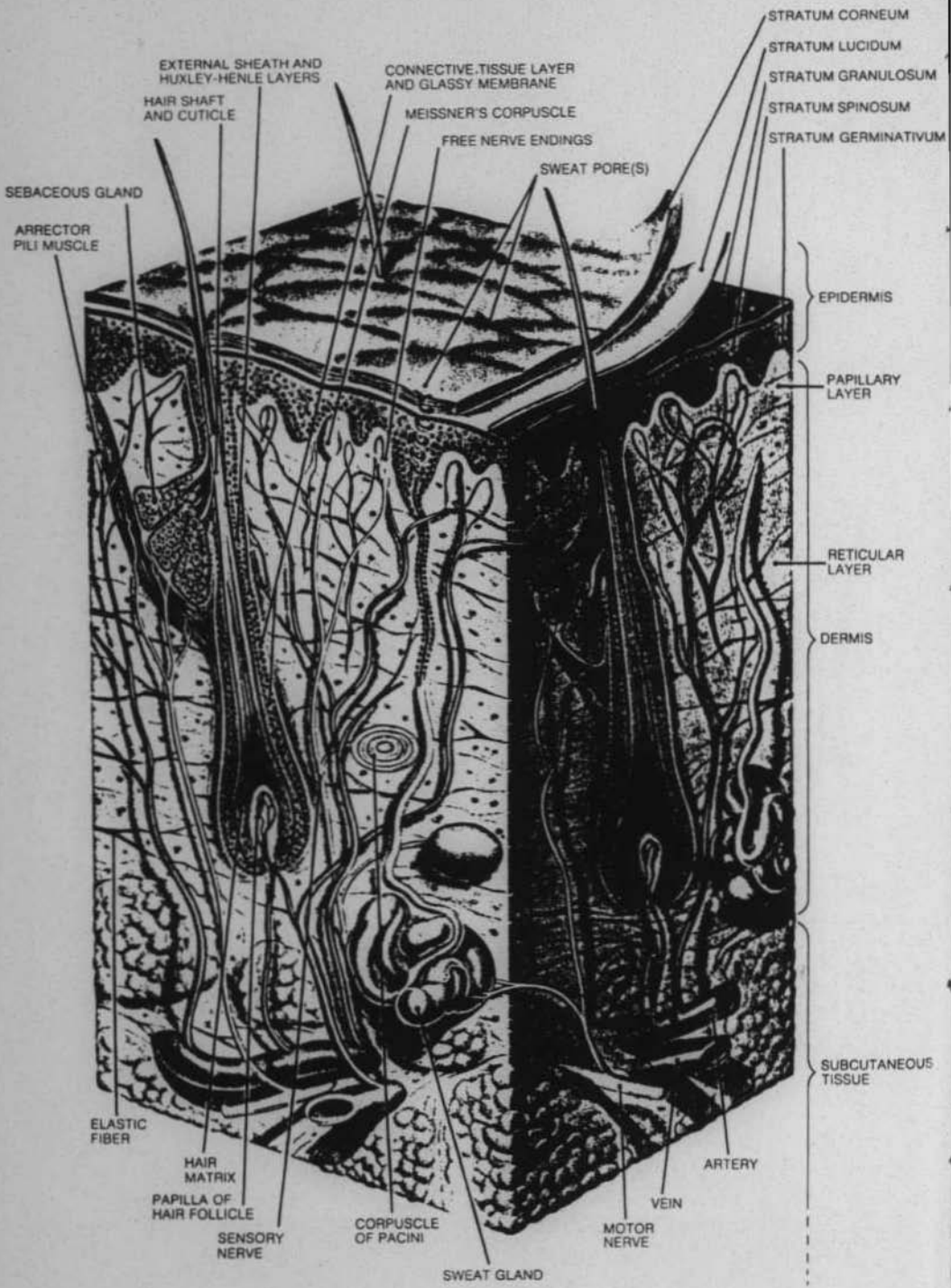
FLORIDA

HEALTH NOTES




STRATUM CORNEUM
STRATUM LUCIDUM
STRATUM GRANULOSUM
STRATUM SPINOSUM
STRATUM GERMINATIVUM
EXTERNAL SHEATH AND HUXLEY-HENLE LAYERS
HAIR SHAFT AND CUTICLE
CONNECTIVE-TISSUE LAYER AND GLASSY MEMBRANE
MEISSNER'S CORPUSCLE
FREE NERVE ENDINGS
SWEAT PORE(S)
SEBACEOUS GLAND
ARRECTOR PILI MUSCLE
EPIDERMIS
PAPILLARY LAYER
RETICULAR LAYER
DERMIS
SUBCUTANEOUS TISSUE
ELASTIC FIBER
HAIR MATRIX
PAPILLA OF HAIR FOLLICLE
SENSORY NERVE
CORPUSCLE OF PACINI
SWEAT GLAND
MOTOR NERVE
VEIN
ARTERY

Common Skin Disorders

There is no single skin disorder peculiar to Florida, but there are some that may be more common in Florida than elsewhere. Certain bacteria thrive better in a warm climate; we stay on the beaches a lot, get more sun; we go barefoot. Because of these and other factors, we are more likely to be exposed to creeping eruption, ground itch, skin damage from the sun, and other conditions. In this issue of *Florida Health Notes*, we will discuss skin conditions and disorders arising from these causes, as well as from other causes, such as acne, head and body lice, allergies and skin cancer.

Some of these skin disorders are more annoying than dangerous. But anything that causes pain, itching and discomfort should not be ignored. The school teacher who must cope with itch and ringworm in her students, the worker who loses time in order to have treatment for cancer of the skin, and the beauty on the beach who stays too long in the sun and burns her skin — all are coping with skin conditions.

Not a textbook . . .

We won't try to cover all the skin disorders known to man. We will just discuss, quite informally, a few of these conditions that you may have wondered about. Nor will we tell you how to treat them. Some varieties of skin diseases are often difficult to diagnose. Treatment methods vary widely. What appears to be a skin disease may be in reality a clue to a more dangerous internal disease. Therefore it is important that you consult your family doctor for diagnosis and treatment of skin disease. He in turn may find it necessary to send you to a dermatologist or "skin specialist" who is more highly skilled in the treatment of skin disorders. Home treatment with patent remedies may be useless — even dangerous — if the diagnosis is not accurate!

But first, how much do you know about the human skin? Did you know that it is an organ, just as the heart, the liver and the stomach are organs? Some people look upon it as merely something that holds you together. The skin is a good deal more than that. It is one of the largest — and most accessible — organs of the body. It will weigh on an average as much as three times the weight of the liver. The skin of a 200-pound man can weigh as much as 30 pounds. It is full of tiny openings or pores, which can open and close to meet changing conditions. It serves as a filter for certain rays of the sun used by the body in the complicated chemistry of growth and repair. Certain bacteria, notably the staphylococci (the chief cause of boils and carbuncles) can work their way through the skin's defenses and set up an infection. Certain internal parasites, such as hookworm, can make their way into the body through tiny nicks or abrasions in the feet, or even through unbroken skin.

Skin is the body's first barrier against the hostile elements of the outside world; in short, our "first barrier of defense" to protect the inner workings of the body. It has a remarkable ability to judge the changing conditions of our environment, to safeguard us from cold, to protect us from heat. This is vital to life itself, since a shift on only a few degrees in the internal body temperature can cause serious damage and death. In a warm climate, like Florida, where sun rays offer more of a threat to the skin and the body, it meets the challenge by increasing the amount of pigment in the skin, protecting the outer surface and the inner tissues, much as colored eyeglasses protect the eyes against an excess of harmful rays from the sun. The outside layer of the skin also blocks the loss of body fluids through uncontrolled evaporation. It also acts as a dam to block absorption of water from the outside.

Let us now consider some of the skin disorders which we may find in Florida (most of which are also found in other parts of the country.)

FLORIDA HEALTH NOTES

Published monthly by the Division of Health (E. Charlton Prather, M.D., M.P.H., Director) of the Florida Department of Health and Rehabilitative Services. Publication office, Florida Health Notes, 1217 Pearl St., Jacksonville, Florida 32201. Second Class Postage paid at Jacksonville, Florida. Printed since 1892, this publication is for individuals and institutions with an interest in the state's health program. Permission is given to quote any story providing credit is given to the Division of Health.

International Standard Serial Number—US-ISSN-0015-4105

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Post Office Form 3579 should be mailed to Box 210, Jacksonville, Florida 32201.

VOLUME 67 NO. 3 MARCH 1975

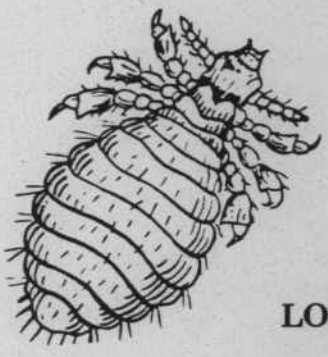
Ectoparasites (Skin Parasites)

Pediculosis (head lice) is epidemic in the United States, as well as in Florida. The head louse is a small wingless grey colored insect which attaches its eggs to the hairs. The eggs are called "nits" and are often seen on the back and sides of the head, particularly in the hair just behind the ears. They are tiny grey capsules. They are frequently seen in members of the same family, but may be contracted by wearing hats which contain the lice, by boys wrestling, by heads coming in contact, and so forth.

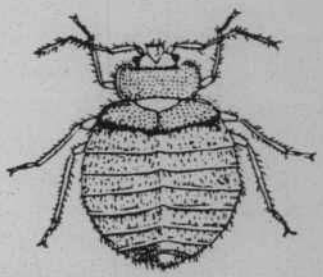
There are a number of fairly simple treatments for head lice today. A fine comb should be used to remove the nits, after medical treatment to kill the lice. These combs are less commonly seen now than a generation ago, but metal varieties may be found in some pet shops.

Body lice usually live in clothing and turn to the skin only for food. They puncture the skin and suck out blood. They tend to bite those areas which are in close contact with underclothes. Pubic lice are found around the genital areas. Note: The body louse transmits epidemic typhus, which is no longer found in this country. Another form of typhus (endemic typhus fever) is spread by the rat flea. Its last outbreak in Florida occurred in 1945.

Bedbugs are still occasionally seen. They are rusty brown colored insects having a very offensive smell. They live in crevices in furniture and walls, as well as beds. A bedbug bite may cause inflammation and irritation. Our better standard of living, cleanliness and modern insecticides are helping to rid us of this scourge.



LOUSE



BEDBUG

Creeping eruption *(cutaneous larva migrans)*, sometimes called **dog and cat hookworm,** can cause intense itching misery. The villain is a worm so tiny it can be barely distinguished under the microscope, and then only by using special techniques. It comes from body wastes of infected dogs and cats. Any ground soiled by these wastes is likely to be a repository for these tiny larval worms. A small child digging in a sandbox, a woman spading in a flower bed, a man lying on his back doing repair work on an automobile, for instance — all expose themselves to the possibility of larva migrans infection. A day or so after the larva enters the skin there will be a small papule, or red bump, which marks the spot where the worm dug in. Some varieties will remain close to the point of entry. Another variety will "travel" just under the skin, leaving a wavering, slightly-raised red line to mark his progress. Because the larval worm is tucked away under the skin, treatment is difficult and medical care is advised.

Aside from the nuisance of the itching, the larva migrans creates another problem. Scratching the itching spot may create breaks in the skin which will lead to secondary infection from ever-present bacteria. Such infections should be treated by a physician. Creeping eruption, because it is known by several names, may be confused with visceral larva migrans, human hookworm, or ringworm.

Visceral larva migrans (an intestinal parasite) is also spread by dogs and cats. It enters the body through the mouth when people handle food or put their fingers in their mouths after handling contaminated soil. The preventive is handwashing.

Human hookworm (an intestinal parasite) makes its entrance into the body usually through the soft skin between the toes. Sometimes this entrance leaves small irritated areas which are known as "ground itch" or "dew itch." These sores may heal in a short time, but the parasite remains in the body unless medical treatment is received. This disorder seldom occurs in children who wear shoes.

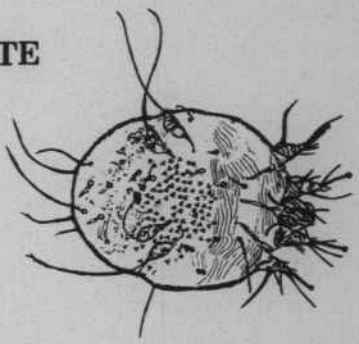
Scabies, the **"seven-year-itch,"** is a once common contagious disease that nearly disappeared in the United States after World War Two. It is beginning to reappear in this country, especially in some Atlantic Coastal states. It is caused by an animal parasite, the itch mite. The female burrows beneath the skin and lays her eggs. Her duty performed, she then dies. The eggs hatch in about three days.

Dogs are prohibited from many beaches because of the danger to bathers of contracting creeping eruptions from dog feces.

Sad but true — haircutting has been used to rid children of persistent infestations of head lice.

Within a few days the young parasites are ready to take up where their mother left off, causing a generalized itching which results from an allergic reaction to the mites. This disease is usually contracted in bed from an infected bedfellow, though children often seem to get it by holding hands or playing together. The signs of scabies are frequently seen on the inner portion of the arm, between the fingers as well as other areas of the body. The teacher or parent will sometimes see scratch marks, indicating a child who has had such itching that he has vigorously scratched himself. Sulphur and lard is an obsolete form of treatment. There are now new preparations prescribed by physicians, which are more effective.

ITCH MITE



Skin Infections

Acne is one of the commonest skin disorders. It is an inflammatory disorder of the pilosebaceous units (hair follicles and sebaceous glands). It usually begins and is most severe during adolescence, due to the rapid increase in certain hormones. A tendency toward severe acne may be partially inherited. Most adolescents will grow out of it, but in cases where scarring occurs, a doctor should be consulted.

Pimples on the back or buttocks may result from poor hygiene — failure to wash thoroughly. All pimples should be treated with a "hands off" policy, and by washing with soap and water. Dietary restrictions — "no greasy foods" — were once considered essential, but are now controversial. There are many acne treatment products of limited effectiveness on the market. It should be remembered that regardless of treatment, acne "comes and goes" in cycles.

Ringworm *(Dermatophytosis)* is a general term applied to fungus diseases of the hair, skin and nails. It includes **ringworm of the scalp** *(tinea capitis)*, **ringworm of the body** *(tinea corporis)*, **ringworm of the nails** *(tinea unguium)*, and **ringworm of the foot** *(tinea pedis)*, or **athlete's foot.**

Athlete's foot is most likely to occur in men, although it can occur in either sex at any age. The most likely sites for picking up the fungus are the floors of public baths and swimming pools (where everyone is barefooted), or through contact with shared towels and clothing. In many cases infection may not occur except after repeated exposures. It is believed that some people are more resistant than others.

Athlete's foot is extremely difficult to eradicate entirely. During the winter months, the fungus has a tendency to "go to sleep," or lie dormant, only to break out again at the approach of warm weather. First evidence of infection is generally seen in the form of small blisters between the toes, accompanied initially by a mild itching sensation. These blisters are broken, generally by scratching or from rubbing socks or shoes. From between the toes the infection sometimes spreads to other parts of the foot. Resulting breaks in the skin make it possible for other types of infection to enter the skin and the body. Patent medicines that many people use for this condition are advertised as effecting a quick cure, but this is not usually possible. The symptoms may temporarily disappear, then reappear, or the feet may become irritated by the strong substances used in these preparations.

Ringworm of the scalp is most common in children under fourteen. It is usually contracted by direct contact or through caps, hairbrushes, or combs. Ringworm of the scalp causes a patch of hair to break off near the roots, leaving a bald or mangey spot. When the infection spreads through a school, health authorities may use a Wood's light in a darkened room to examine the children's heads. Hairs which are infected will shine with a bright greenish light when exposed to this light. Prompt medical attention should be sought for any scalp infection. (Note: Dandruff is a name given to a common scalp condition in which the scalp is more or less covered with white scales which fall on the shoulder when the hair is brushed. The cause is not fully understood. Shampoos recommended by a physician may control the symptoms.

A familiar sight — looking for signs of athlete's foot between the toes.

Sometimes when ringworm of the scalp becomes prevalent in a school, infected children are allowed to attend if they wear a protective cap to keep other children from contracting the infection.

Fever blisters are caused by herpes virus. They are usually found around the face and lips, but can occur on other parts of the body. These blisters break open and then scab over with a crust. This is a recurrent disease — with its initial infection generally occurring in childhood — and reappearing in episodes throughout life. It often accompanies a bad cold or follows exposure to strong sunlight. Fever blisters can recur several times a year for several years without apparant cause. They usually clear up without bad effects.

Warts are another skin condition caused by a virus. There are several kinds, among them juvenile warts which occur in great numbers on the hands and faces of children; common warts which usually are found on the hands; and plantar warts which occur on the ball of the foot or on the heel. Warts frequently require no treatment and will disappear spontaneously, usually after a period of many months. However, some warts require special medical treatment. One of the great dangers is for an individual to act as his own physician and try to remove warts by burning them with caustics.

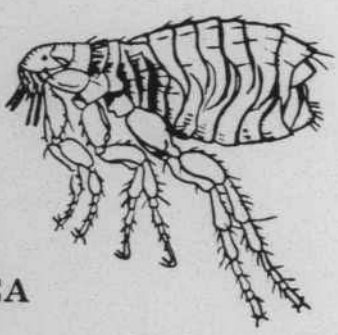
Impetigo, or "Florida sores" (sometimes erroneously called "infantigo") is frequently seen in children. Impetigo appears as round crusty sores, which have been preceded by small blisters. They may be seen on practically any part of the body. If the crusts are removed but the sores are not treated, a serum still oozes out and very soon forms another yellow-looking crust. New spots soon appear in the neighborhood of the original sores. It is contagious from one person to another.

Impetigo should always be treated by a physician. One of its causes is the same germ which can lead to serious kidney disease (acute glomerulonephritis). Today, internal medication or injection is recommended, instead of merely the application of an ointment.

Boils, contrary to an oft-stated belief, are not the result of an "inward poison." Although they may be seen in persons who are "run down," they can also occur in an otherwise healthy person. Boils may occur where clothing has rubbed on the body, particularly the neck and the buttocks. They start as a hard red sore area and eventually become filled with pus. Frequently a person will have a series of boils and should always see his physician when this occurs, as this may be a symptom of some other disease. Untreated boils on the face are particularly dangerous, as the infection could reach the brain covering. This is one of the reasons that you should never squeeze a boil. Boils are sometimes quite persistent. **Carbuncles** are regarded by doctors as a group of boils, and often occur at the nape of the neck. They take longer to heal and can be quite serious.

Bites, Stings and Allergies

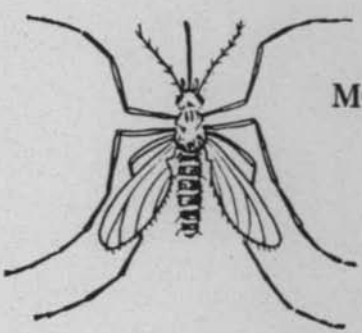
Insect bites, annoying local irritations, can be caused by **fleas, sand flies, mosquitos, gnats,** and the like. Some persons react violently — they may have an allergy to them. These people should probably use an insect repellent on their skin when insects are present.



FLEA

Stings from **bees, wasps, hornets,** and **yellow jackets** are always painful and may be dangerous. Some people are allergic to the venom in these stings, and may have a fatal reaction, unless prompt medical treatment can be found. Such people should consult a physician about the possibility of desensitizing shots.

Chiggers, known to Floridians as **redbugs,** are usually found wherever there is heavy brush or undergrowth. Their bite brings an annoying itching and discomfort, and can cause loss of sleep and fever. The chigger is the first or larval stage of a large red velvet mite which is entirely harmless when mature. Chiggers attach themselves to the skin and suck blood, and even though they are very small, they can inject a significant quantity of poisonous material into the person they fasten on. This poison causes the itching. There are numerous theories as to how to protect one's self from chiggers. Probably the best preventive is to wear clothing that will keep them from climbing the legs, such as high top boots over trousers, or to wear specially treated clothing. Any of the widely known insect repellents will effectively discourage these pests.

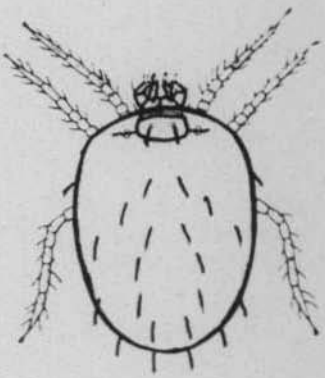


MOSQUITO

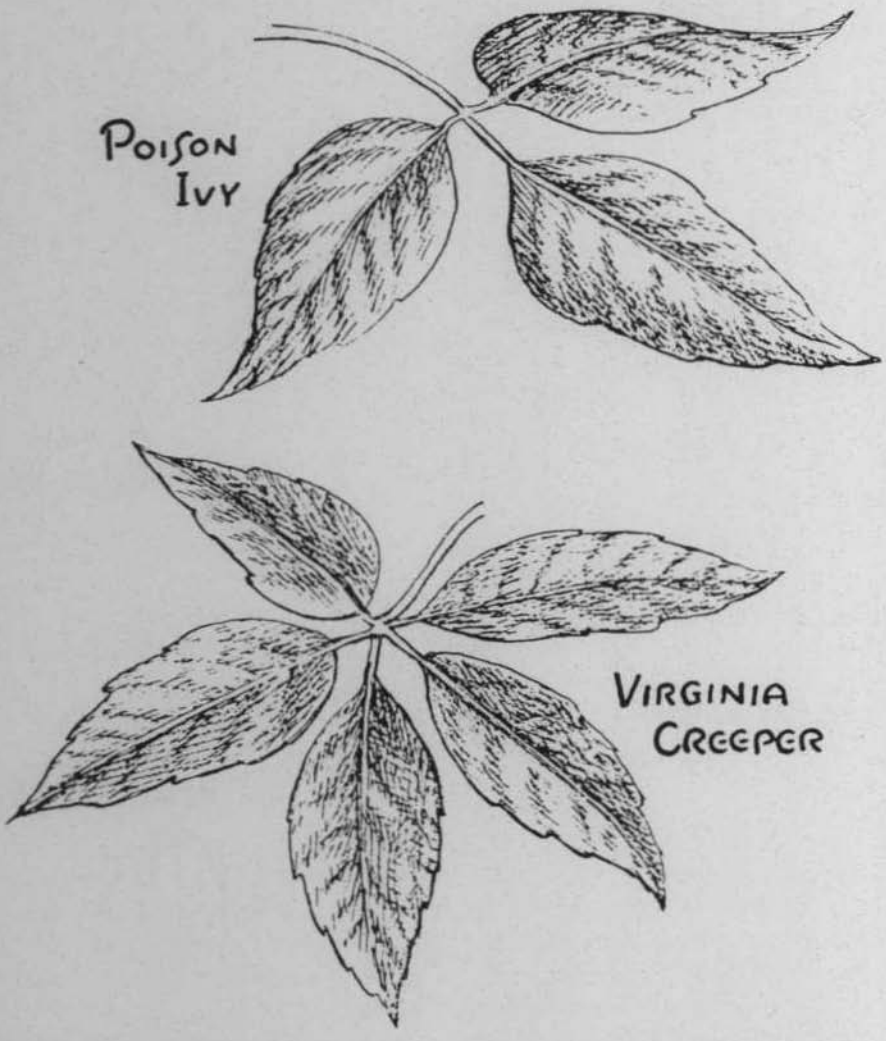
HORNET

YELLOW JACKET

WASP



CHIGGER



Floridians should learn the difference between harmless Virginia Creeper and Poison Ivy. Note that Poison Ivy has three leaves.

Dermatitis is a general term meaning inflammation of the epidermis and dermis, the outer layers of the skin. **Eczema** is another general term for inflammation of the skin.

Some people have a greater degree of **skin-sensitivity** than others. A wide variety of substances can cause dermatitis. More commonly known substances which cause trouble, and their favored sites include:

1. Certain types of scalp lotions, hair dyes, cloth, leather, fur and other materials used in headgear, find the scalp and forehead a focal point in sensitive people;

2. The eyelids may be affected by airborne dusts, pollens, sprays, and by soaps, perfumes, eye-drops, ointments, eyelash and eyebrow dyes. They may also be irritated by nail polish and other substances carried to the eyelids by the fingers;

3. Cosmetics, lotions and ointments may affect any part of the body to which they are applied. Nasal drops, sprays and ointments may affect the nose, while toothpastes and mouthwashes may irritate the mouth or lips;

4. Some **plants** may cause dermatitis in susceptible persons, either through skin contact, or as a symptom of internal poisoning. A partial list of these plants includes: poison ivy, poisonwood, poison oak, chili pepper, fishtail palm, tread-softly, red purge, candelabra cactus, pencil tree, poinsettia, machineel, oyster plant, purple queen, aralia, century plant, elephant's ear, dumb cane (dieffenbachia), hunter's robe, lime, mango, Brazilian pepper, and cajeput.

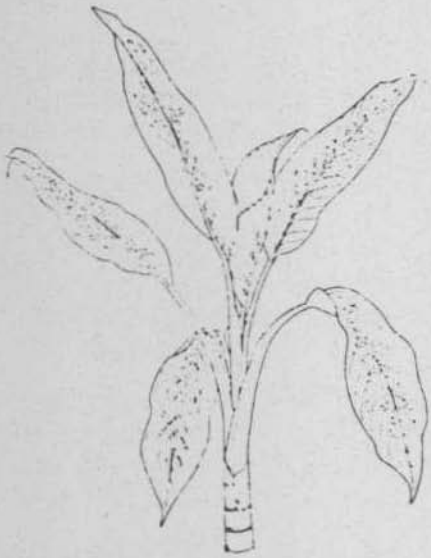
Poison ivy dermatitis occurs in people who are sensitive to this plant. Numerous small irritated blisters and swelling of the hands and face is not unusual. An eruption can sometimes be averted if soon after exposure the hands and face and legs are thoroughly washed with ordinary laundry soap. Shots are available, which may benefit persons who are hypersensitive to poison ivy. Poison ivy eruptions generally last about two weeks. During this period, a physician may prescribe medication to relieve the symptoms.

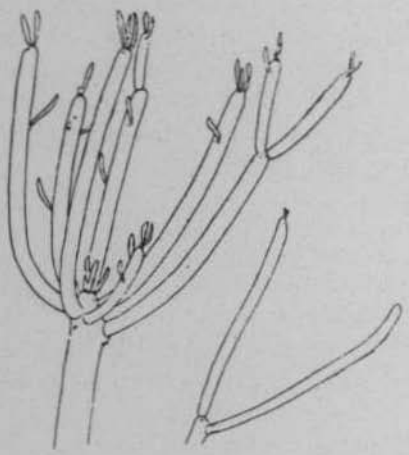
The following are some other common plants which can cause skin inflammation (as well as other kinds of poisoning) in susceptible persons.

DUMB CANE, DIEFFENBACHIA (Dieffenbachia seguine or D. picta)

Description: A shrub with green, fleshy stems. Leaves, on stalks up to 15 inches long, are variously mottled, spotted or streaked with white. Flowers are inconspicuous. Mostly a house plant but in South Florida may be planted outdoors.

Toxicity: Leaves and stems contain poison which may cause intense irritation of mouth and throat with salivation, swelling of throat and temporary loss of speech. If swallowed, intense inflammation of stomach and intestines may occur.





MILK BUSH, PENCIL TREE (Euphorbia tirucalli)

Description: This is a shrub which grows up to 20 feet high with milky sap. It is popular in North Florida as a house plant. Small green leaves are inconspicuous at the end of branches and usually fall off as new branches are formed. Flowers are in small clusters. Sap flows freely from cut or bruised plant.

Toxicity: The milky sap and all parts of the plant are toxic. The milky sap is very irritating to the skin and eyes. It is poisonous if taken internally.

POISONWOOD, CORAL SUMAC (Metopium toxiferum)

Description: Common in South Florida, this is a shrub or tree growing up to 35 feet tall with leathery, oval, alternating leaves that are up to three and one-half inches in length. Small flowers are yellowish green; the orange-yellow, oval fruit has one seed.

Toxicity: All parts of the plant contain a poison, especially the sap which may contaminate clothing, shoes, etc., for months. First symptoms are itching or burning sensations which may occur in a few hours or up to five days after exposure. Severe reaction may produce fever, abscesses and enlarged glands.

MANGO (Mangifera indica)

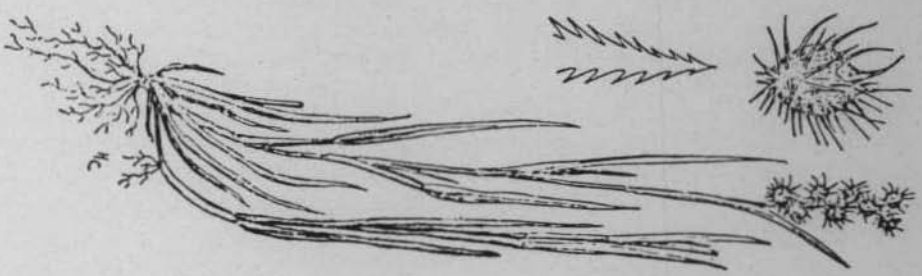
Description: This is an evergreen tree found in South Florida which grows up to 60 feet high. Leaves are stiff and narrow. Flowers are pinkish and white in irregular branched clusters. Fruit is large and smooth with a large flat seed.

Toxicity: The sap of the mango tree contains a poisonous material that is very irritating to susceptible people. Eating mangoes may cause a rash around the mouth from eating the fruit. The plant may cause blisters and swelling very similar to poison-ivy poisoning.

SANDBURR (Cenchrus pauciflorus)

Description: This low-growing grass is found in sandy fields and grasslands of Florida. The plant produces spikelets of seed pods which are surrounded by stiff barbs.

Toxicity: While not poisonous in the common sense, the barbs of the sandburr can enter the skin of humans and animals and cause inflammation and infection.



This foolish woman has burned herself — with the sun. The skin never fully recovers from sunburn. After repeated overexposures, "crow's feet" or other signs of "premature aging" may appear. The effects add up from year to year. Repeated sunburning is associated with skin cancer.

People who expose themselves to the sun for long periods should ask their pharmacist for a SUNSCREEN lotion (not suntan lotion). These products will allow tanning at a slow and safe rate.

Other Disorders and Conditions

Cancer of the skin may arise from normal appearing skin, or develop from a mole or other lesion. Skin cancers usually occur on the face or hands and are more common in the older age group. They may at first be mistaken for a pimple, or first appear as a scaly place that occasionally bleeds. Skin cancer may develop from chronic overexposure to sunlight, or to rubbing or chafing. Chronic scaling lesions in sun-exposed areas may be pre-cancerous keratoses, or actual skin cancer.

These signs should be brought to your doctor's attention, if they occur in a mole, or other skin lesions:

1. Increase in size;
2. Inflammation or pain;
3. Ulceration or unexplained bleeding;
4. Failure to heal.

Corns and Calluses usually form between or on the tops of the toes. They generally result from too much walking or standing in tight or ill-fitting shoes. Calluses on other parts of the body result from the same general causes — pressure and abrasion. These conditions may require treatment by a specialist, in addition to correcting the cause.

Psoriasis, a skin disease of unknown origin, is usually characterized by raised reddish spots covered by silvery scales. It is not infectious and occurs in both men and women. It is frequently confused with other skin disorders. Favored locations for this skin disease are the elbows, knees, the fronts of the legs and the lower part of the back.

A number of useless home remedies are sold for the treatment of psoriasis. They take advantage of the fact that the disorder commonly "comes and goes" in cycles. It will often get better no matter what treatment is used — or even with no treatment at all. There is no cure, but severe symptoms may be controlled by professional medical treatment.

There are skin conditions characterized by **abnormal pigmentation.** The normal skin contains a certain amount of color-producing pigment known as melanin. The amount of melanin in the skin determines the color, and is dependent upon the individual's race and other inherited characteristics.

Occasionally a person is born without skin pigment, a condition known as **albinism.** An albino has white or pink skin, whitish hair, and a lack of pigment in his eyes, resulting in a pinkish appearance. Partial albinism may result in a spotted or piebald appearance. It is present at birth and does not change throughout a lifetime.

Another condition, **vitiligo**, can first appear during childhood or later in life. This condition is characterized by pinkish or milk-white patches of various sizes and shapes over the body — most frequently over the hands. These areas have lost the normal skin pigment. This condition may be associated with other medical problems, and a doctor should be consulted.

In Conclusion . . .

These skin disorders have been described and discussed in order that Floridians may avoid unnecessary pain and suffering. Some of the disorders may be prevented through good personal hygiene. Others, such as sunburn, may be prevented by the application of a sunscreen and good sense. Just as important, though, is the prevention of complications resulting from delayed or nonprofessional treatment. Many skin disorders "come and go," regardless of treatment. The makers of over-the-counter remedies get rich from people's ignorance of this fact. We hope this publication will help people make wiser decisions when faced with skin problems.

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Division of Health

US-ISSN-0015-4105

FLORIDA HEALTH NOTES

VOLUME 67 NO. 4 JUNE, 1975

Over-The Counter Drugs


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ILLUSTRATIONS:
ROW UPON ROW OF PILLS AND PROMISES — but are they any good, and are they safe?

Self medication is a tradition which persists in America. We seldom use wild plants to brew up remedies anymore, but we do use the local drug store as a source of treatments for numerous ailments — including the sniffles, insomnia, constipation, upset stomach, headache and muscle pains. We are encouraged to do so by a barrage of commercial messages extolling hundreds of products with "medically proven ingredients." This too, is a part of the American tradition of huckstering remedies for human ills.

These products are referred to as over-the-counter or non-prescription drugs. Most of us assume that because they are available without prescription, they are perfectly safe to use. A surprisingly large number of people believe that the advertising claims made for these products "must be true or they wouldn't be allowed to say them."

This issue of *Florida Health Notes* will examine some of the more common over-the-counter products, discuss their safety and effectiveness. For most people, the hazard from these products is slight — but it does exist. Each kind of product requires its own special warnings. Some may be harmful to people with specific medical conditions; others may tempt people to increase the dosage beyond the recommended safe level. It is always best to read the full instructions that come with these products, especially when they recommend consulting a doctor in case of certain symptoms.

Who makes the distinction between prescription drugs and over-the-counter drugs, and why is the distinction made?

Basically, the distinction between the prescription and non-prescription drugs is based on their possible harmful side effects. Practically all drugs or medicines may have some side effects which are undesirable or even dangerous, so there really isn't a clear-cut line between prescription and non-prescription drugs.

A non-prescription drug may be fatal if taken in excessive amounts, and conversely there may be some prescription medicines which will not cause fatal reactions. But the primary difference is in their potential for harm.

Penicillin, for example, can cause severe and even fatal allergic reactions in some people (reactions which can usually be countered by prompt medical treatment.) Such a drug clearly belongs in the prescription category. Many sedatives, such as morphine, can become addictive, so they are available only by prescription. Aspirin, on the other hand, does not usually create serious side effects, is not addictive, and is useful in relieving pain. Because it is usually safe, it is available over-the-counter, but even such "safe" drugs (especially aspirin) are a major cause of poisoning deaths in young children.

There are thousands of drugs of varying degrees of safety and effectiveness, and each must be evaluated separately. This is the responsibility of the Food and Drug Administration under the Federal Food, Drug, and Cosmetic Act. The FDA regulates both over-the-counter and prescription drugs in terms of labeling, warnings, and so forth.

FLORIDA HEALTH NOTES

Published monthly by the Division of Health (E. Charlton Prather, M.D., M.P.H., Director) of the Florida Department of Health and Rehabilitative Services. Publication office, Florida Health Notes, 1217 Pearl St., Jacksonville, Florida 32201. Second Class Postage paid at Jacksonville, Florida. Printed since 1892, this publication is for individuals and institutions with an interest in the state's health program. Permission is given to quote any story providing credit is given to the Division of Health.

International Standard Serial Number—US-ISSN-0015-4105

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Post Office Form 3579 should be mailed to Box 210, Jacksonville, Florida 32201.

Americans have a long history of self-medication and home remedies, dating back to colonial days and the frontier traveling medicine shows. Nostrums have been offered as cures for just about every disease known to man. In a sense, over-the-counter drugs descend from this tradition of self-medication. It is unlikely that self-medication, despite its hazards, will ever disappear.

It does not appear practical to attempt doing away with over-the-counter drugs. If people could not get non-prescription medicines they would have to consult a doctor for everything from aspirin to laxatives. This might take up too much of doctors' valuable time, be very costly, and interfere with the treatment of serious illnesses.

Even worse, if these drugs were not available, people might turn to other forms of self-treatment — such as folk remedies or charlatans.

Aren't there any problems with over-the-counter drugs?

There certainly are problems, some of them potentially serious. Most of them can be attributed to the effects of hard-sell advertising, which may be misleading, though not actually false. The solution to these problems lies in providing the public with sound health information from valid and trustworthy sources. People want and should have this information — this is obvious from the number of health related books and magazine articles on the market. Hopefully, this information will be used wisely.

Where can a person get reliable health information?

The family physician is the primary source of such information, whenever he is available. Another, often overlooked, source is the pharmacist. He is trained in the effects of drugs, their benefits and possible risks. Local health departments can also provide information about over-the-counter drugs. Publications such as this are another source.

What kinds of products are considered over-the-counter drugs?

There are so many they cannot all be listed here. A partial list of types would at least include antacids, antihistamines, cold medicines, cough syrups, decongestants, laxatives, mouth washes, pain relievers, reducing pills, sleep aids, and even vitamins. Almost every family buys one or more of these products. There are thousands of brands on the market. Americans spend more than 500 million dollars a year for non-prescription medicines.

Pain Relievers

Pain relievers, primarily aspirin, are the most common over-the-counter drugs. Aspirin is effective against pain; it reduces fever and inflammation. Aspirin has a low toxicity, which makes it the standard by which other pain relievers are compared.

Although aspirin is generally a safe and effective drug, there are hazards associated with its use — as there are with any drug. In children, excessive doses can cause death. In adults, excessive doses may cause ringing in the ears (tinnitus).

Some people should not use aspirin. Some individuals experience heartburn after a single dose. Aspirin is a frequent cause of stomach bleeding, or ulceration. People with ulcers should not take it.

What about different brands of aspirin, and buffered aspirins?

It is tempting to say that aspirin is aspirin. The active ingredient is the same in all tablets. But the tablets are made differently, and some of them break apart faster than others. Breaking apart faster does not necessarily mean they work faster, and there is little evidence that any brand is more effective in relieving pain. Aspirin does deteriorate with age, however, and it is unwise to buy such large quantities that it sits on the shelf for years.

Buffered aspirin is simply aspirin combined with an antacid to combat stomach upset or bleeding. Clinical studies suggest that the best way to combat stomach upset is to take a full glass of water, fruit juice, or other liquid along with the regular aspirin. It is also acceptable to dissolve the aspirin in some liquid before taking it.

What about combinations of ingredients?

There are several pain relieving ingredients available in over-the-counter tablets: among them are acetaminophen, phenacetin, and salicyamide. In addition to these, some manufacturers add the stimulant drug, caffeine, to their tablets. Perhaps the most widely known combination is the APC tablet (aspirin, phenacetin, caffeine) which is not usually sold over the counter, and is prohibited in some countries. This combination was once so popular it was jokingly called the "All-Purpose-Capsule."

Clinical studies have shown aspirin to be one of the most effective pain relieving ingredient available over-the-counter. It is nearly equaled by acetaminophen, which is a good choice for people who are sensitive to aspirin. There is little or no evidence that aspirin is improved by combining it with less effective pain relievers.

What about the tablets that contain "more of the ingredient doctors recommend most?"

The ingredient "doctors recommend most" is aspirin. Tablets that contain more of this ingredient simply contain more aspirin. It does not take a mathematical wizard to figure out that this "extra strength" comes at a high price. This is an example of how advertising may be misleading without being untruthful.

What about aspirin for children?

Children's aspirin tablets are usually about ¼ as potent as tablets for adults. They can be useful for reducing pain and fever. The biggest problem with these tablets is that they are usually candy flavored, which tempts children to eat them like candy. And very young children may not be deterred by the acrid taste of regular aspirin. Large amounts of aspirin are potentially fatal to children. Aspirin should be locked up in households in which small children live or visit, along with all other drugs and potential poisons. Many children are poisoned each year in their grandparents' homes, because such drugs are often carelessly left lying around.

Cough Medicines

Are cough medicines of any use?

The answer to this question depends on the cause of the cough. There is a great danger of treating a cough as if it were the result of a minor cold when, in fact, it may be the symptom of something else.

A cough, especially a long-standing cough, can be a sign of chronic destructive bronchitis, emphysema, pulmonary embolism or clot, pulmonary congestion due to congestive heart disease, or a bronchogenic carcinoma. Chronic smoker's cough can mask more serious underlying problems. Any cough not associated with a cold, or which lasts more than a few days, should be brought to the attention of a doctor.

What about coughs associated with colds?

There are basically two kinds of coughs: productive and non-productive. The productive cough helps free the respiratory tract of accumulated mucus and irritants. The non-productive cough is dry, barking, and tends to perpetuate itself. This kind of cough often follows a cold in a familiar pattern.

As long as a cough is productive, there is no reason to suppress it. In fact it is serving as essential purpose.

How do cough medicines work?

Most over-the-counter cough remedies are mixtures of sugar and alcohol. Sugar tends to soothe irritated membranes for a short time, and alcohol acts as a depressant (though it has no specific effect on coughs).

Another kind of ingredient which may appear in some cough medicines is called an expectorant. Expectorants tend to liquify or loosen thickened fluids in the respiratory tract. This makes them easier to cough up. Examples of expectorants are ammonium chloride and glyceral guaiacolate.

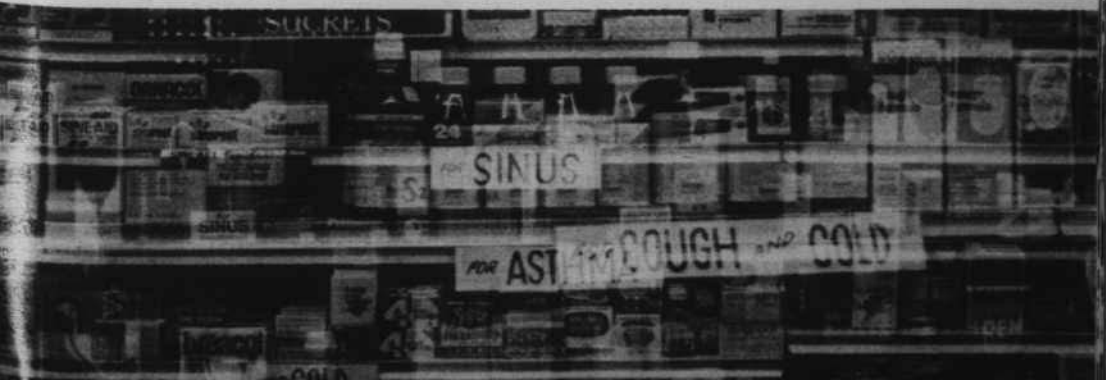
Another kind of ingredient is the cough depressant. Codine is the most familiar example, but it is a narcotic drug, and some states will not allow it to be sold over-the-counter. Dextromethorphan is a non-narcotic drug with a similar cough-depressant effect. These drugs can cause nausea and drowsiness in a significant number of users.

What about smoker's cough?

Smokers cough results from the body's attempt to rid itself of irritants inhaled during the day. If this cough is suppressed, it encourages the growth of bacteria, which can lead to infection. Most cases of chronic obstructive bronchitis, bronchiectasis, and emphysema are related to smoking.

Is there any danger of mixing cough medicines with other kinds of drugs?

Yes, there have been some fatal episodes involving the mixture of some cough medicines with alcohol. This is just one example. One of the weakest areas in medicine is the lack of knowledge of what happens when two different drugs are mixed together. There are thousands and thousands of drugs in use, and there is certainly more to learn about how they interact with each other. What happens when two or three or more drugs are combined? In many cases, no one knows.



Antacids

Another common group of disorders for which people take over-the-counter drugs includes "stomach upset," "heartburn," "gas" and "indigestion." These terms are medically ambiguous. They do not have clear definitions. They are not a diagnosis; at best they may describe a symptom. Yet Americans spend over 100 million dollars a year to treat these rather vague symptoms. Most of this treatment is based on self-diagnosis.

Does this mean that antacids are dangerous?

There is a potential for harm. This is because a number of serious diseases may cause stomach pain, which may be mistaken for "excess acid," or hyperacidity. Among them are acute gastritis, pancreatitis, angina, gallstones, stomach cancer, and even coronary heart disease. Most of these condtions are relatively rare, but there is a risk that continued use of antacids may delay medical treatment.

What about the taking of antacids by people with ulcers, high blood pressure, or kidney stones?

These conditions should be considered separately. Antacids are often prescribed to relieve the pain of an ulcer, but the diagnosis and treatment of ulcers is a job for a physician. The antacid does not cure the ulcer; in fact it can hide the symptoms while the ulcer is getting worse.

There are a number of medical conditions which call for caution in the use of antacids. For example, people with high blood pressure may be on low-sodium diets, and many antacids contain sodium. Many antacids contain calcium, which may be harmful to people with kidney stones. These are just two examples. Many more could be listed. In general, antacids should not be considered safe for continuous, long-term use by anyone without medical supervision.

What are the most frequent causes of occasional stomach upset, heartburn, and indigestion?

These conditions can have any of a number of causes: overeating, emotional stress, drinking alcoholic beverages, and reactions to certain foods. These conditions should be temporary; if they last more than a few days it is advisable to see a doctor. If the symptoms recur periodically, perhaps there is some food that can be omitted from the diet, some emotional problem that can be resolved, or some other problem that can be cleared up.

There are many different antacid ingredients. Are any of them better than the others?

Not really. Antacids work by neutralizing the hydrochloric acid found in gastric fluids. They all do this basic job. Some of them do not contain sodium or calcium, and are therefore more suitable for long-term use. None of them are clearly superior for one-time use.

What about baking soda in a glass of water?

Bicarbonate of soda is cheap and effective. It does, however, contain sodium, and should not be used regularly.

Laxatives

There are more than 700 over-the-counter laxative preparations available. American spend about 200 million dollars a year for them. And yet most people appear to be misinformed about them. They do not know when a laxative is appropriate; they do not know when it is dangerous to take a laxative; they do not realize that laxatives can cause chronic constipation.

How can laxatives cause constipation?

Before answering this question, some background is necessary. A lot of people have been told that bowel movements must occur every day at the same time of day. This teaching was based on an obsolete, disproved theory that waste matter is harmful and must quickly be eliminated from the body. This theory was never based on observation of the habits of normal, healthy people.

The fact is that among normal, healthy people there is wide variation in the time between bowel movements. Some people will have two movements a day; others may have only two movements a week. No ill effects have been observed to result from this variation.

Another misunderstanding suggests that constipation causes tiredness, irritability, or headaches. There is little medical evidence for this — in fact this belief may be exactly backwards. It is known that emotional stress can disrupt bowel function. In some people it may cause diarrhea? in others it may cause constipation. These are not conditions that an individual can diagnose in himself.

Most laxatives (including roughage, or bulk foods) work by irritating the bowel to stimulate activity. Repeated use of irritants can result in the muscles becoming less and less sensitive. This means that stronger and stronger irritants must be used; natural elimination becomes impossible. The person may be said to have a "laxative habit."

When is it dangerous to take a laxative?

* Laxatives should never be used when abdominal pain, nausea, vomiting, or other symptoms of appendicitis or intestinal obstruction are present.

* Laxatives should not be given to children without prescription.

* Prolonged use of laxatives can lead to chronic constipation, hemorrhoids, and in some cases the body can become deficient in certain vitamins or minerals.

* It should be repeated that laxatives should not be taken in the presence of abdominal pain, nausea, or vomiting.

When is it appropriate to use a laxative?

The best answer to this is that laxatives are appropriate when they are recommended by a doctor. It may be unrealistic to expect everyone to follow this rule, but the more people understand about the subject, the more likely they are to accept it. The following facts should be kept in mind:

* People are not all on the same schedule.

* There is nothing wrong or unhealthy about occasionally missing a bowel movement. Factors affecting this are diet, emotions, use of certain drugs, and possibly lack of exercise.

* Constipation nearly always cures itself in a matter of a day or two. If it doesn't, or if pain exists, it is best to see a doctor.

* In this country, some cases of chronic constipation not of organic origin, may be caused by laxatives.

Obesity Control Products

It is ironic that in today's world many people face the prospect of starvation, and yet one of the major concerns of the people in this country is obesity, or fatness. We have a thriving business in this country selling weight-loss or weight-control drugs. In addition to these products are countless weight-control diets that promise to remove fat without pain or effort. Also, there are special diet food products — low in calories — which are intended to be eaten instead of regular food.

Are any of these products or diets effective?

First of all, it is necessary to clarify the various claims made for these products. Some products claim to curb appetite; some provide a filling, no-calorie food substitute; some merely provide a packaged diet. Some diet books promise miracles; they claim that special kinds or combinations of foods will eliminate fat.

If any of these methods worked for more than a few people, the method would certainly be quickly accepted. The problem is that none of them work well in the long run. People lose weight by all kinds of methods, but it does little good unless it lasts.

Why is it so difficult to lose weight?

Weight loss involves eating less, and in many cases, exercising more. Almost all obesity responds to a diet reduced in calories. The problem is appetite — the desire to eat, or overeat. Some people appear to overeat to relieve emotional stress; others overeat for unknown reasons.

There simply is not any reliable cure for the desire to overeat. This includes prescription appetite-control drugs, whose effectiveness is lost with continued use. At some point or another every obese person must decide for himself whether weight loss is worth the effort.

All successful weight-loss programs involve eating less, or eating lower calorie foods. Some diet plans try to hide this fact. For example, some of the "eat-all-you-want" miracle diets include unappetizing foods, or a choice that is so restricted that it becomes monotonous. People who manage to follow these diets to the letter may simply eat less because they do not enjoy the foods. At the same time, many of these diets lack essential nutrients, or they may contain too much of others. These diets are particularly dangerous to persons with medical problems in addition to obesity.

Some diet products are based on the "phony-food" principle. They enable a person to eat a lot of bulky, low-calorie non-foods. This approach may help a few people, but there is not much evidence that it helps in the long run. The obese person must still stick to a restricted diet, and that is exactly what the person has trouble doing.

Another approach is the "canned diet." This comes in the form of liquids, powders, cookies, soups, and so forth. These are intended to take the place of all food for the duration of the diet. Aside from the cost of these produts, their major drawback is that they do not teach good nutritional habits. Too many people give up dieting completely when they give up the products. This kind of up and down weight gain and loss is probably harmful. A person can easily wind up overweight and malnourished at the same time.

What about diet clubs?

Diet clubs seem to work very well for some people. They approach the problems of weight management through motivation rather than magic. They provide support, encouragement, counseling, regular record keeping, and recognition of success — all within a group of people with the same basic problems.

These clubs usually require members to have the approval of a physician before beginning a weight loss diet. They also stress eating a variety of regular foods, a practice which prepares a person for the transition from weight loss to weight maintenance.

For the great majority of people, weight loss is simply a matter of eating less than the body burns. The greatest problems are psychological. There are no magic formulas to make it painless. Diet products and diet plans may provide a temporary psychological crutch, but up and down weight gain and loss is usually undesirable. And most of the diet products are worthless in the long run.

Oral Hygiene

Dental health and oral hygiene products account for many millions of dollars in sales. These products include toothpaste, mouthwash, denture cleaners, toothbrushes, and so forth. Most of these products are not exactly drugs, but they are designed to treat or prevent some disorder.

Most attention is focused on tooth decay, or dental caries. Some years ago toothpastes advertised their germ-killing power, but they do not talk about this much anymore. This is because the germ killer is in the mouth only a few minutes and does not seem to prevent cavities.

The only ingredient known to prevent cavities is fluoride, and several products containing stannous fluoride or sodium monofluorophosphate have been proven to be effective in preventing tooth decay.

More attention should be paid to other aspects of dental care, particularly the toothbrush and dental floss. Most dentists now recommend a soft brush — one flexible enough to bend and get below the gum line. The purpose of this is to remove deposits, or plaque, from the teeth before it hardens into calculus, or tartar. Removal of plaque is considered essential to the prevention of both cavities and gum disease.

Use of dental floss is also recommended. It is the only way to remove material from between the teeth. The devices that spray water may be of some use in cleaning hard-to-get-at places, but they do not replace dental floss.

Plaque control — the daily removal of plaque by brushing and flossing is a relatively new idea in dentistry. People who have not visited a dentist in several years may be surprised to find that there is a new and more effective way to brush teeth, and that dentists are now much more insistent about the use of dental floss. This is because among adults, the major cause of tooth loss is disease of the gums. It is still necessary to keep the teeth clean, even though adults tend to have fewer cavities than children.

In children, the major contributor to decay is sugar. It is believed that decay is seriously increased by continuous snacking on sugar-containing foods. Many parents seem unable or unwilling to eliminate these foods from their children's diets, but there are other ways to help. It should help to cut out sugary snacks between meals and substitute fruit, vegetables, or even non-sugary snack foods. It is believed that the amount of sugar consumed is less important that the timing. Cavities are less likely to occur when the mouth is not constantly bathed with sugar.

What about electric toothbrushes?

Electric toothbrushes are generally as effective as good manual toothbrushes, although far more expensive. They may be of special benefit to people who cannot use a manual toothbrush effectively. They may help motivate children to brush their teeth, but this effect may be temporary. Most electric brushes are battery operated and completely safe. Plug-in models are generally safe, but if they should fall into water, they should be unplugged before removing.

What about mouthwashes?

Mouthwashes are of little, if any, value. They have little or no effect on tooth decay or gum disease. They rinse away some materials from the mouth, but the same can be accomplished by water.

Of course, mouthwashes are most often promoted for use against bad breath. Any claims that these products protect against bad breath are misleading. One reason mouthwashes cannot stop bad breath is that their antiseptic, or germ-killing action only lasts a few minutes. Another reason is that no odor-absorbing material is available that could be used in sufficient quantities in the mouth. At best, these products mask an unpleasant odor with a less offensive odor, but only for a short time.

More importantly, most bad breath does not originate in the mouth, but in the bloodstream or in the lungs. The aromas of onions and garlic are carried to the lungs by the bloodstream. Their odor can temporarily be covered up by more pleasant smelling substances, but it cannot be eliminated by washing the mouth. Likewise, "tobacco-breath" does not originate in the mouth. In addition to these common causes, mouth odor may result from an infectious disorder, such as tooth decay or throat infection. These cannot be treated or prevented by mouthwash.

Sleeping Pills

Sleep is a very complicated subject. Perhaps the most widespread misunderstanding about sleep is the mistaken notion that everyone needs eight hours of sleep every night. There are several things wrong with this belief. First of all, not everyone needs the same amount of sleep. Secondly, people tend to regulate themselves, each person sleeping an amount that is right for himself. Thirdly, there is no evidence of harm due to occasional loss of sleep — such as might occur in an emergency or special occasion.

What causes insomnia, or sleeplessness?

There are many possible causes for sleeplessness. The most common causes are the use of stimulants such as caffeine, emotional stress, pain, cough, breathing difficulty, and the need for frequent urination. In all of these instances, the loss of sleep is secondary to some other disorder. In these cases, relief from insomnia requires treatment of the underlying condition.

Some temporary sleeplessness can be caused by drugs. The most common sleep inhibiting drug is caffeine, which may be found in coffee, tea, chocolate, or cola drinks. Some prescription drugs may also act as stimulants.

When all of these possible causes are eliminated, and the only remaining complaint is inability to get enough sleep, perhaps the person just does not need eight hours every night. Many people get along quite well on five or six hours of sleep. Rare individuals may need even less.

Are non-prescription sleeping pills safe?

As has been said previously, no drug is perfectly safe, and non-prescription sleeping pills are no exception. The fact that they are available without prescription does indicate that they are relatively safe when taken as directed. But here we encounter the concept of "taken as directed." The effect of any medication is determined by the amount taken, and the period of time involved. For example, aspirin is considered safe for most people, but it can kill if enough is taken over a short period of time. This cannot be overemphasized, because so many people try to increase the effectiveness of non-prescription medicines by increasing the dose.

Does this imply that these drugs are not very effective?

This is hard to answer, because so much depends on individual differences. Also, the effect of these drugs may be largely determined by one's expectations.

It is interesting to note that the sedative actions of over-the-counter sleep aids are considered side effects when the same ingredients are used for another purpose. In fact, all of the sleep aids available in this country without prescription are based principally on an antihistamine. The major purpose of this antihistamine is to control the symptoms of allergies and colds.

The label on these antihistamines says they may cause drowsiness, and it warns that it is unsafe to drive or operate some machines after taking them. These effects do not occur in all people, and the same is true of the sleep aid products.

Is that all over-the-counter sleeping pills are — antihistamines?

No, but it might be better if this were true. Many of the over-the-counter sleep aids contain scopolamine, which is a sedative. The amount is small — far less than the smallest dose known to be effective — but it is large enough to cause unpleasant side effects in some people. Among these side effects are dry mouth, blurred vision, increased pressure in the eyes, and difficulty in urination. Scopolamine is particularly dangerous to people who have closed-angle glaucoma — an eye disorder that may go unnoticed without regular medical checkups.

Some sleep aids also contain pain relievers, and some contain bromides. Most manufacturers have eliminated bromides from their formulas, because of serious dangers from bromide poisoning. Bromides may cause allergic reactions in some people, and in large doses they are poisonous. Continued use of bromides may result in acute drug-induced psychosis, a kind of "temporary insanity."

If sleep aids are so hazardous, why are they allowed on the market?

Once again, they are probably safe for most people, "when taken as directed." The problem is that in these doses the benefit is also slight. Many people believe that if one pill is good, two must be twice as good, three must be three times as good, and so forth. Most often what happens is that the danger of side effects doubles or triples.

Another unfortunate thing is that sedatives, or central nervous system depressants, tend to lose their effect when used regularly. This means that each dose is less effective than the last. When a person notices this, he may increase the dosage, and this, of course cancels any claims to the drug's safety. Once again it is worth saying that the benefit from these drugs is going to be slight for most people. They are not satisfactory for long-term use, and there is no medical reason to fear occasional loss of sleep.

Cold Medicines

There are hundreds, if not thousands, of cold remedies on the market. This reflects the frequency of this ailment and the amount of misery it causes. Perhaps we should say **these ailments,** because it is believed that hundreds of different viruses are responsible for cold symptoms. Recovery from a cold does not result in immunity to all of these viruses. It may provide immunity only to the single virus that caused the illness, and this may only be temporary.

Since there is no cure for colds and no "shots" which can provide immunity, treatment can only relieve symptoms. Nearly all cold medicines contain pain relievers; some contain antihistamines and decongestants to relieve a stuffy nose. Cough medicines are sometimes included and have already been discussed.

The most common pain reliever, aspirin, also reduces fever, but high fever does not usually accompany common colds. High fever may be a sign of a more serious infection, and should be investigated by a doctor.

Decongestants, whether in pill or nasal spray form, work by narrowing the blood vessels. This can be hazardous to people with high blood pressure (and millions of people have hypertension without knowing it.) Also, decongestants can cause rebound when used continuously. This means that their effect can wear off completely — leaving the person worse off than before. Further use, or higher doses will have no effect. To prevent this rebound effect, decongestants, especially nasal sprays, should not be used more than two or three times a day.

Can colds be prevented?

This question is subject to much research and debate. There are three general areas in which claims are made: the first is that huge doses of vitamin C will prevent colds; the second is that some kind of medication, usually "cold tablets," will reduce the severity of a cold; the third is that cold viruses can be avoided.

Vitamin C is still under investigation as a cold preventive, but the best and latest evidence is that it is not very effective. In addition to being ineffective, huge doses of vitamin C are known to be toxic to some people, especially unborn children. Infants born of mothers who take huge quantities of vitamin C during pregnancy may develop deficiency disease (scruvy), despite normal intake of the vitamin. This is because their developing body adjusted to the large quantities of the vitamin while in their mother's womb.

People with diabetes should be aware that large amounts of vitamin C can interfere with urine sugar testing. Older people, and people with any of a number of other disorders, may be unable to tolerate high doses of vitamin C. In addition, the long range effects on normal, healthy people have not been determined.

Another theory, often suggested in advertising, is that cold medicines can prevent complications, or make colds less severe. There is no evidence for this. No over-the-counter medication has ever been shown to shorten the duration of colds (about one to two weeks), prevent coughs or sore throats, or prevent secondary (bacterial) infections. At best, cold medicines can relieve pain, and provide some temporary relief from stuffy noses.

How Colds Are Spread

According to the best available evidence, colds are not directly related to temperature or to weather. They are caused by viruses, not by wet feet or chills. The more frequent occurrence of colds in the winter is probably due to people spending more time indoors — increasing the opportunities for speading the viruses from person to person.

Colds are most often spread from hand to mouth, although they can also result from inhaling moisture droplets from coughs and sneezes. It is likely that people could prevent some colds by washing their hands before putting them in their mouths or handling food. This, plus avoiding contact with persons having upper respiratory tract infections, is the best known way of reducing one's chances of getting a cold.

Useless Remedies

There may be more useless than useful products on the market for colds. These, along with countless home remedies, may have some psychological effects, but they do not prevent or cure colds.

Most "combination of ingredients" products are of little value. They are high-priced, often have many unnecessary ingredients, and usually have less than an effective dose of pain reliever or decongestant.

Among the ingredients which have little or no effect on colds or cold symptoms are antihistamines, caffeine, "medicated" vapor, vitamins, and alcohol. Some of these products are not only useless, but may have undesirable side effects. In particular, antihistamines may cause drowsiness — a hazard to people who are driving or operating machinery.

We wish to thank the Michigan Department of Public Health for permission to use some information and material which appeared in their publication, *Michigan's Health.*

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FLORIDA HEALTH NOTES was promulgated at an annual average cost of $38,064, or 15.8¢ per copy, to provide health education for the people of Florida.

Division of Health
of the
Florida Department of Health and Rehabilitative Services

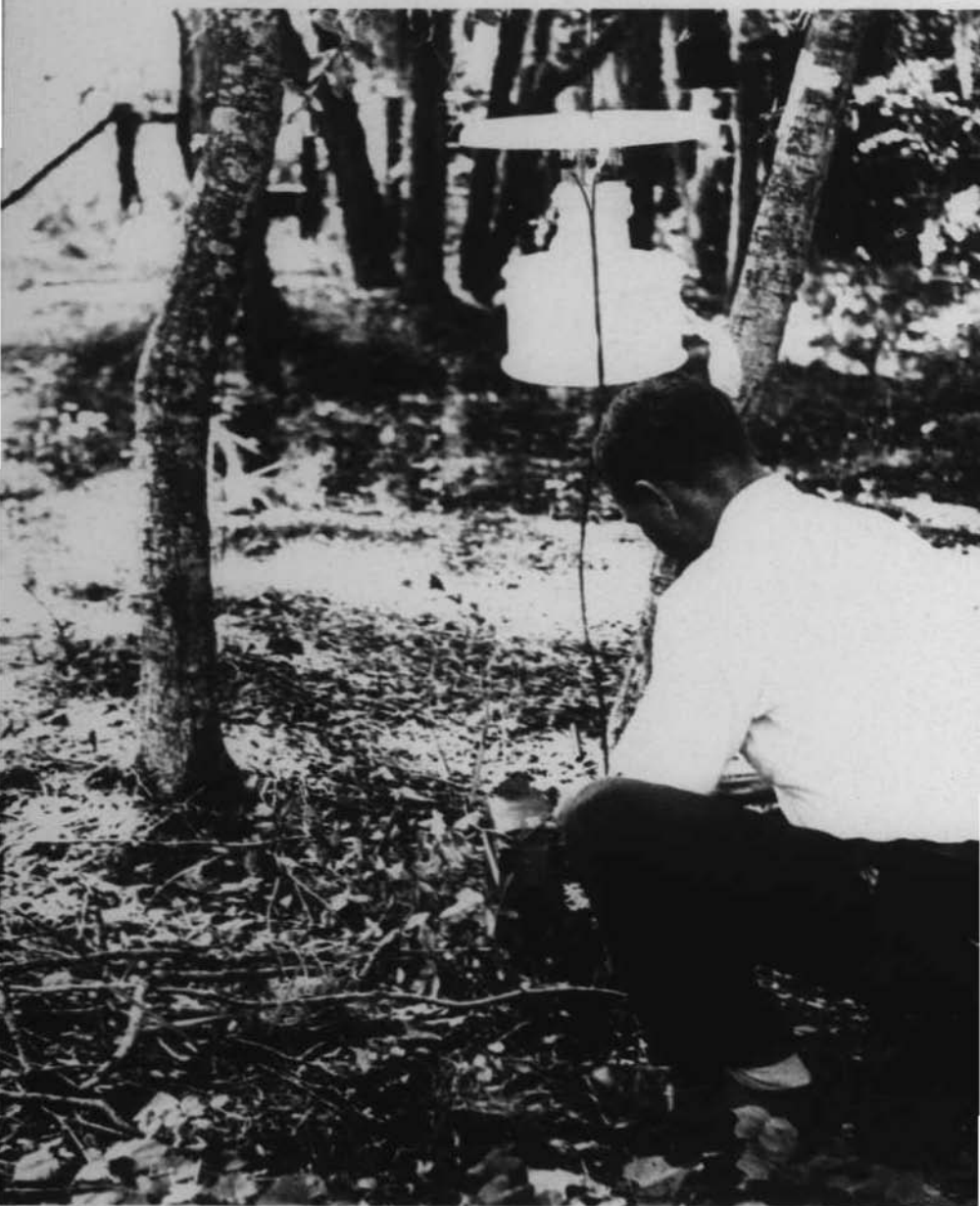
Post Office Box 210 Jacksonville, Florida 32201

FLORIDA

HEALTH NOT

VOLUME 67 NO. 5

Highlights of 1974



BASIC RESEARCH — Research projects conducted by th Division of Health resulted in 49 articles being published. Th work shown here deals with mosquito control. Research in pe control, chronic diseases, and in preventable diseases is aimed a prevention.

This issue of *Florida Health Notes* is abridged from the *Annual Report* of the Florida Division of Health. It is not a complete report. It does not cover the complete range of activities of the Division and the county health departments.

Missing, for example, are reports on important research activities which resulted in the publication of 49 articles in scientific journals.

Missing are the individual reports on the activities of the county health departments. Missing are reports of many programs which equally deserved to be included.

Also missing, we regret, is an adequate reflection of the warm interest and personal concern of the Division staff members for the people they serve. Limitations of time and editorial space have caused these personal factors to be neglected in this report. But they have not been neglected by the people of the Division. Their attitude and the manner in which they have performed their duties have made their work far more productive than mere routine.

The complete *Annual Report* has many important highlights. Here are a few of them.

Almost without exception each of the 67 counties took some constructive action to improve their emergency medical systems. This improvement was to such extent that basic services were available to 95 percent of Florida's population by the end of 1974.

Of more than 236,000 children enrolled in kindergarten and first grade, 212,080 or 89.5 percent were protected by immunization against diphtheria, whooping cough, tetanus, measles, rubella, and poliomyelitis. The reported number of cases of measles, rubella, whooping cough, diphtheria, poliomyelitis and tetanus was the lowest on record.

The 1974 mosquito season was one of the worst since the late 1950's. Shortages of fuel oil and certain pesticides and increased labor and materials costs caused many counties and districts to curtail the amount of control work they otherwise would have performed.

Prominent communicable diseases included hepatitis A and influenza; unusual reports were Reye's syndrome and anthrax.

The venereal diseases increased, infectious syphilis 50 percent over last year and gonorrhea 17 percent. The activities of staff members with duties in these fields also increased and this no doubt partially accounts for the rise in number of reported cases.

The W. T. Edwards Tuberculosis Hospital at Tampa was closed due to a gradual decrease in patients needing this kind of care. The A. G. Holley State Hospital at Lantana remained open. Most of these patients now are treated in their own communities. This year some 42 percent of 1,460 newly reported tuberculosis patients received all care in clinics near their homes.

Among chronic diseases, the greatest increase in cancer deaths among men and women was due to tumors of the lung directly attributable to cigarette smoking.

For the first time 60 nutritionists conducted activities in 67 counties which reflected concern among the people for the impact of nutrition on health and escalating food costs.

The number of nursing homes increased from 297 with 29,262 beds to 300 with 29,796 beds. Six new homes were licensed and three older ones were closed. Also, 26 institutional homes for the aged were licensed with 2,023 beds and six residential health care homes with 1,941 beds. Four homes with 375 beds were licensed for special services.

FLORIDA HEALTH NOTES

Published monthly by the Division of Health (E. Charlton Prather, M.D., M.P.H., Director) of the Florida Department of Health and Rehabilitative Services. Publication office, Florida Health Notes, 1217 Pearl St., Jacksonville, Florida 32201. Second Class Postage paid at Jacksonville, Florida. Printed since 1892, this publication is for individuals and institutions with an interest in the state's health program. Permission is given to quote any story providing credit is given to the Division of Health.

International Standard Serial Number—US-ISSN-0015-4105

Editor: James L. Sowder, M.A.

Post Office Form 3579 should be mailed to Box 210, Jacksonville, Florida 32201.

ADMINISTRATION

Staff Changes

The most significant change was retirement of Wilson T. Sowder, M.D., M.P.H., as State Health Officer and, more recently, Director of the Division. E. Charlton Prather, M.D., M.P.H., was appointed by the Secretary, Department of Health and Rehabilitative Services, effective July 1 to succeed Dr. Sowder. Dr. Prather had previously served as Chief of the Bureau of Preventable Diseases.

John Campbell, B.S., assumed the responsibility as Administrator of the Personnel Services Section succeeding Benjamin G. Allen, M.S., who resigned. Jane Wilcox, Sc.D., M.P.H., retired as Administrator, Public Health Nursing Section, and was succeeded by Dolores M. Wennlund, M.S.

David L. Crane, M.D., M.P.H., resigned as Chief of the Bureau of Local Health Services and accepted the position as Director, Brevard County Health Department.

John F. McGarry, M.D., M.P.H., became Chief of the Bureau of Local Health Services following service as director of the Sarasota County Health Department.

Jorge Deju, M.D., M.P.H., who had been MCH director in Kentucky, came to the Division as Chief of the Bureau of Maternal Health and Family Planning succeeding A. F. Caraway, M.D., who assumed responsibility as consultant in the Gulf Coast area with headquarters in Sarasota.

Ralph B. Hogan, M.D., M.P.H., moved from the position of Administrator, VD Control Section, to Chief of the Bureau of Preventable Diseases, succeeding Dr. Prather. Clifford Cole, M.D., was appointed Administrator of the VD Control Section.

Juan A. Tomas, D.V.M., M.P.H., was appointed to the vacant Administrator's post, Veterinary Public Health Section.

The entire agency grieved at the loss of Roland B. Mitchell, Ph.D., Chief of the Bureau of Research. He died of cancer in May, 1974 and Oliver H. Boorde, M.P.H., was appointed acting Chief.

Evan Day assumed the vacancy as Administrator of the Vital Records Section.

CHILD HEALTH SECTION

Plans were completed in the first half of 1974 for termination of project grants for Florida's five MIC and two C & Y projects. This occurred on June 30. The Section acquired administrative responsibility for two C & Y projects, one operated by the Dade County Health Department and the other by the University of Miami Comprehensive Health Care Program as part of Florida's new MCH "Program of Projects."

The Newborn Intensive Care Unit in Sacred Heart Hospital of Pensacola also was included in the "Program of Projects." The Section provided support to facilitate expansion of the social services component of the unit.

The section administrator served as a consultant to the Perinatal Advisory Committee. The committee is chaired by the Perinatal Intensive Care Project director, and advises both the DCMS and the DH.

Supported by a second grant from the Florida Regional Medical Program, the Section began expansion of its six county program of newborn surveillance for congenital defects. In addition to baseline geographic surveillance, the study includes data on infants hospitalized in the five Neonatal Intensive Care Centers.

Section staff members continue to work with county health departments, other bureaus and sections, and other public and private agencies to improve and expand the Medicaid Screening Program. This continues to be a high priority program.

With passage of the School Health Services Act of 1974, a broad range of services are to be provided on a statewide basis to children in all Florida public schools and participating nonpublic schools. The bill emphasizes on-site care for sickness and injury, expanded health screening programs, adequate follow-up, health counseling and provides for physical examination of medically indigent students.

The DHRS has given the DH primary responsibility for administering this extensive program. In conjunction with the DOE, representatives of the DH Child Health Section and Nursing Section, other HRS divisions, and private agencies and numerous individuals representing a variety of health disciplines have developed the state plan required for implementation on January 1, 1975. The plan includes guidelines for coordination with such programs as Medicaid, Head Start, Exceptional Child Education, Title I programs and Comprehensive Health Education.

NUTRITION SECTION

Mounting awareness of the impact of nutrition on health and escalating food costs stimulated more use of nutritional guidance. The Section implemented new programs for women, infants, children and the elderly while continuing ongoing services through county health departments (CHDs), divisions of the Department of Health and Rehabilitative Services (DHRS) and related health, education and social agencies. Pregnant and lactating women, infants and children, persons with chronic illnesses, elderly, low income families and group care facilities received priority.

Mothers attending clinics or teenage parent classes received most of the diet counseling. Nutrition counseling was increasingly integrated into family planning clinics. Mothers of infants and young children receiving guidance or participating in Medicaid screening were advised about foods and dietary modifications. Iron deficiency and obesity were observed as major problems. The Supplemental Food Program for Women, Infants and Children (WIC) funded by the U.S. Department of Agriculture was planned and administered in Brevard, Broward, Collier, Dade, Duval and Okaloosa CHDs and University of Miami Comprehensive Health Care Program. Through this program pregnant and lactating women and mothers of infants and children up to age four, certified by a physician, nurse or nutritionist as at high nutritional risk, are issued coupons for purchase of recommended nutrient dense foods. The caseload authorized for the seven projects was 12, 916 with 22,300 mothers, infants and children benefiting.

Nutritionists wrote six issues of "Nutrition in a Nutshell" to disseminate information to 2,400 professional workers. A diet recipe column was written for 12 issues of "Timely Topics for Diabetics" distributed by the Bureau of Adult Health and Chronic Diseases. Three infant feeding leaflets were printed in English and Spanish and distributed with a professional guide. The manual, "Food Fare for Child Day Care," several years in preparation, was printed and distributed. A statewide food costing survey was conducted and food budgets and WIC food priced for use by staff of DH and DFS. With help of staff of the Division of Planning and Evaluation a program was prepared for data processing so that future studies can be done more often.

HEALTH EDUCATION SECTION

Consultative services in a wide variety of health related fields were among the major functions of this section. These services were provided to the School Health Medical Advisory Committee of the Florida Medical Association — which advises the State Department of Education and the Division of Health. Consultation was also provided for similar committees of the Florida Dental Association, Florida State University, University of Florida, University of West Florida, and to voluntary, professional and civic groups. The consultants worked with 28 county health departments developing educational materials and programs.

Four Division of Health orientation programs were conducted, a weekly radio program coordinated, and many photographic assignments were done. Six intern students worked and observed here. The section was designated a general information center, and almost 450,000 pieces of educational material were distributed.

The Sanitation Section was assisted in developing a Statewide Food Managers Training Course, including a slide series with narration, a manual and a display.

Audiovisual Library

There were 14,549 booking orders processed (a decrease of 725) covering motion pictures, filmstrips, slides and videotapes on various health subjects; however, the total number of motion pictures and other aids circulated was 19,823, an increase of 61. There was a total of 497 pieces of equipment used, an increase of 115. Only 172 new aids were added to the inventory to bring the total of all aids to 2,454.

Medical Library

The medical library collection including bound journals totaled 28,915 at year's end, an increase of 779 volumes over last year. There were 483 books withdrawn because of being lost or outdated, 323 items added to vertical file and 1,262 books cataloged. There were 1,718 books circulated; an increase of only 134; however, 15,762 journals were circulated, an increase of 1,745. There were 48,302 photocopies made, 938 references questions handled, 368 informational and directional questions answered, five bibliographies prepared, 583 interlibrary loans, 1,365 duplicate items exchanged with other libraries and 12 duplicate or withdrawn items given CHDs.

EMERGENCY MEDICAL SERVICES SECTION

The Emergency Medical Services Program is responsible for assuring that persons who have a medical emergency are provided quality emergency medical services (EMS) at the scene, en route to the hospital, and upon admission to the hospital.

Substantial improvement has occurred in Florida's EMS Program in 1974. Legislation passed in 1973 setting new minimum size standards for ambulances to become effective January 1, 1976 was followed in the purchase of new vehicles. The state legislature appropriated $400,000 in 1973 for grants to county EMS systems.

Almost without exception, each of the 67 counties took some constructive action to improve the quality of their EMS Systems in 1974. This improvement was to such extent that basic emergency medical services were available to 95 percent of Florida's population by the end of 1974.

During 1974 the number of Registered Emergency Medical Technicians in Florida more than doubled. Also Emergency Medical Technician II Programs were initiated in a number of communities with approximately 300 students receiving training above the basic level of EMT I training.

The Mobile Ambulance Demonstration Training Team (MADTT) was set up in 1974. A model ambulance was built, equipped with the most modern equipment, and staffed with highly competent Emergency Medical Technicians. The MADTT is funded by the Florida Regional Medical Program. Florida Medical Association, and Division of Health, and is available without charge to any county requesting it. The MADTT serves as a guide to counties in setting up Emergency Medical Services Systems and demonstrates quality services.

A Community Disaster Exercise is a procedure by which any group of agencies, whether governmental bodies or volunteer organizations, can determine their actual ability to cope with disasters of any sort involving any number of injured persons. A guide entitled "Community Disaster Exercises — A Manual for Their Conduct" was produced and distributed in 1974 by DH.

Work was begun on a guide entitled "Disaster Planning for Nursing Homes." This publication will be distributed in early 1975.

PUBLIC HEALTH NURSING SECTION

There are two overall responsibilities of the Public Health Nursing Section: improvement of health personnel competence and administration of the Home Health Services program.

Accomplishments

Thirty per cent of the county health departments report that the standards for Public Health Nursing in Schools are being phased into practice.

The Nursing Information System has been tested in four counties and is ready for selective operational implementation.

The Public Health Nurse Orientation Program is being redeveloped as a joint project with Florida Regional Medical Program.

Careful scrutiny of county health department time and cost study reports as related to Blue Cross audits has resulted in saving close to $49,000 among at least seven county health departments.

School Health Services were interpreted sufficiently well to secure the assignment of that program for the Division of Health.

Fifty-seven lay-midwives licensed to practice, a decrease of six from last year. Seventeen certified nurse-midwives registered, the same number as last year.

The rules and regulations concerning midwifery were re-promulgated January 1, 1975, after public hearing.

Twenty-four family planning nurse practitioners have been trained through the joint efforts of the Section, Bureau of Maternal Health and Family Planning and University Hospital.

Fourteen orientees were trained in the orientation centers.

Issues

The reclassification of the Public Health Nursing series with the elimination of advanced academic preparation for administrative positions has made inordinate demands on the administrators of this Section. Distortion of Section recommendations for staff position reclassifications has resulted in many problems.

PUBLIC HEALTH STATISTICS SECTION

This Section provides biostatistical support and consultation to all bureaus and sections of the Division of Health and compiles, analyzes and presents data obtained from vital records and special studies.

In the area of statistical consultation, the Section provided services in design of forms, sample framework, data collection systems, tabulating procedures, statistical analysis and interpretation, and presentation of reports.

During this year the Section completed work on a system which creates a computerized file from matched birth and death records for infants under one year of age. This data will provide information for planning and evaluation of maternal and infant care programs.

The Section continued to provide statistical assistance in the collection, analysis and presentation of data relating to a surveillance of infants with congenital malformations conducted by the Child Health Section in a six-county region in northeast Florida. The program is conducted in cooperation with the Foundation for Medical Care in Duval County and operates through the voluntary cooperation of physicians, hospital and medical record librarians. One of its purposes is to monitor the occurrence of malformations and maintain a case registry for epidemiologic and genetic studies. This year 212 malformations were recorded.

The Section published the "Monthly Statistical Report" of births, deaths, marriages, and divorces. An article of public interest accompanied each issue which was distributed to county health departments, hospitals, libraries and schools. Approximately 1,000 copies were included each month.

The Section also published an annual summary and analysis of data from vital records entitled "Florida Vital Statistics." This series, which has been maintained for over 30 years, presents a complete picture of the vital statistics situation by county for the year, also a brief review of past vital rate trends. In addition to these formal reports, the Section provided data from unpublished sources to physicians, faculty members and students.

Bureau of Adult Health and Chronic Diseases

This Bureau is responsible for these categorical programs: Cancer Control, Cardiovascular Diseases, Diabetes Control, Epilepsy Control, Health Care of the Aged, Hearing Aid Program, Kidney Disease, Medical Examiners' Services, Prevention of Blindness, Smoking and Health, and other research and demonstration projects. It is organized into five sections: Adult Health, Chronic Disease, Heart Disease, Kidney Disease and Medical Examiners' Service.

HEALTH PROFILE SCREENING

Health Profile Screening to encourage early detection of diseases has been emphasized and supported where such programs met the needs of a community.

Most patients with early chronic conditions can be treated successfully. As an example, over 12,400 individuals during the past 12 years have been identified with suspected ocular hypertension and referred to ophthalmologists for diagnosis and treatment of glaucoma, if indicated. It is stressed that tests are not diagnostic but designed to raise the index of suspicion and awareness of those persons who should consult their personal physicians for further medical evaluation.

Chronic Obstructive Respiratory Diseases

This group of diseases which includes chronic bronchitis, emphysema and asthma experienced a slight decline in mortality rate in the 65 and over age group during 1974 but remained the fifth cause of death. The rates among both men and women above 45 also decreased.

Chronic bronchitis and emphysema are definitely smoking-related. Discontinuing the smoking of cigarettes is one important method at hand for primary prevention. Continued health education measures appear indicated.

The long-term goal of the Smoking and Health Program has been to affect a change in the public attitude toward smoking in public places. The first noticeable change occurred during 1974. Individuals sensitive to cigarette smoke voiced their discomfort when confronted with smokers in a greater variety of public and private situations.

HEALTH CARE OF THE AGING

The 1,298,137 persons in Florida over 65 years of age constitute 16 percent of the state's population. Eighty-five percent are white and 68 percent live in urban-metropolitan areas.

The objectives of the Bureau's Health Care of the Aging program are: (1) Establish and upgrade the necessary health services and health care programs; and; (2) Insure that the aged, and their needs, are given full consideration in both existing health programs and in planning for all future health programs.

Health Programs for the Aging are directed to the following areas:

(1) Health Profile Screening Programs devised for the early detection of various chronic diseases among the population at large. Special emphasis is directed to insure that these programs reach large numbers of elderly people.

(2) Home Health Services available to both Medicare and non-Medicare patients, and include skilled home nursing care, homemaker services, home health aides, physical therapy, speech therapy, occupational therapy, and medical social services.

(3) Coordinated Home Care Programs include a variety of medical and nursing plans which attempt to extend hospital services beyond the hospital and into the home where most needed.

(4) Nutritional Counseling and Education provide for assistance with food selection and preparation, diet planning, and interpretation of special dietary needs and requirements.

(5) Health Education includes special emphasis on the cause and nature of the various conditions associated with aging as well as with chronic illness.

(6) Rehabilitative and Restorative Services utilizes the services of public health nurses, special therapists, and services available through various state and local official and voluntary health agencies to minimize or circumvent residual disability.

(7) Improved Health Facilities for the Aged establish the need for, and assist in the establishment of, facilities for the aged and work toward the improvement of services currently available through existing facilities.

HEART DISEASE

Cardiovascular screening programs under Bureau direction constitute the major thrust toward control of heart disease in Florida. The practices of education, prevention, early detection and referral to treatment and rehabilitation can be best united in screening programs. Twenty-eight counties are now served by CVS programs through 44 clinics and over 600 people receive this service each week. Since this program started in 1968, 2,700 lay volunteer workers have been trained to operate screening centers and to do the necessary follow-up work. Current economic trends will limit expansion of screening services to approximately six new clinics during 1975.

Congenital Heart Disease

The role of the DH in congenital heart disease is two-fold: First, to inform the general public of the danger of viral infection during the first few weeks of pregnancy and to avoid the use of drugs that may be teratogenic; Second, to identify congenital malformations as early as possible through well baby clinics and examination by the PHNs at the time of home visits, thus allowing for early surgical correction. CHDs continue to be one of the most important sources of referral of malformation cases to the Division of Children's Medical Services (DCMS) for treatment.

Ischemic Heart Disease

Ischemic heart disease is important because of the large number of people affected and the tremendous economic impact on the families of the victims. It is the most significant category of heart disease and accounts for over 92.5 percent of the deaths. The total impact is further emphasized by the fact that this category each year accounts for approximately 33.7 percent of the total deaths from all causes.

Efforts to control this disease have been directed toward certain traits and habits known to be associated closely with the acute clinical manifestations of the basic disease, atherosclerosis. Some of the most important risk factors include diabetes, hypertension, hyperuricemia, hypertriglyceridemia, and cigarette smoking.

Those factors of great importance which cannot be altered clinically are age, sex, family history, and abnormal EKG.

High blood pressure is one of the risk factors for atherosclerosis. Its severity depends on the coexistence of other factors such as diabetes, hypercholesterolemia, and hypertriglyceridemia. Age is also one of the risk factors since atherosclerosis takes time to develop.

Special efforts have been made to identify people with hypertension and bring them under treatment. Hypertension is amenable to treatment.

The Bureau has prepared an exhibit showing the prevalence and age distribution of hypertension in a three county area of west Florida. The exhibit also depicts the results of a community-wide effort to bring patients under medical treatment. It was accepted by the American Heart Association, American College of Cardiology, American Medical Association Scientific Session, American College of Physicians, National Medical Association, and American Academy of Family Physicians. It has been accepted for four conventions during 1975.

Cardiovascular Screening Demonstrations

Bureau personnel with cooperating CHD employees provided demonstration exhibits for conventions during 1974. The purpose was to show operating models of CVS clinics which could become a part of local health department services. Such groups as the Florida Medical Association and the Florida Association of County Commissioners received the benefits of these demonstrations during their annual conventions.

Clinics for Hyperlipidemia

Many patients found to be in high risk of heart attack or stroke because of elevated lipids are unable to purchase the services of a physician or to pay for laboratory services on repeated blood lipid determinations.

One answer to this problem is that of clinics operated by nurse practitioners to advise patients on the use of a proper diet and to monitor its effect on their blood lipids.

Clinics are now being operated at the University Hospital of Jacksonville; Pine Forest Clinic — Unit of the Jacksonville Health Department; Bonifay for Holmes, Walton and Washington Counties; Crestview, Okaloosa County; Milton, Santa Rosa County, and Pensacola, Escambia County.

Bureau of Dental Health

The future for the control of dental caries in this country seems rosy. At least that is the impression one gets from reading the newspaper. A word of caution has been expressed in at least one of these reports: the public must cooperate in order to attain the objective. The evidence indicates what people should do. They should refrain from inclusion of foods with a high content of sugar in their diets, particularly sucrose, and maintain scrupulously the personal oral cleanliness which prevents dental plaque from accumulating on their teeth. Individual action and initiative, in fact, probably will be required for most of the advances in preventive dentistry that now are envisioned. Such measures may be suitable for many highly motivated patients seen in the private practice of dentistry but one may question that they are applicable to a wide-scale public health program.

From most recent experience it must be concluded that merely possessing a correct attitude is not synonymous with taking necessary action. Current programs in dental public health have not proved adequate in making behavioral changes in the public. After all the education and re-education of the public to return for frequent checks, one wonders why less than 45 percent of the country's adult population visits a dentist as often as once a year.

Most consistent with the Bureau's philosophy of prevention is the practice of fluoridating drinking water. Community approach constitutes the ideal public health measure. The benefits are conferred automatically to recipients without any conscious action on their part.

Of the estimated 8.24 million people in the state, about 80 percent or 6.60 million have access to water from communal water supplies. With a little over 2 million people obtaining water containing fluoride, the remaining 4.60 million are not deriving the benefits of community fluoridation.

Statewide fluoridation legislation remains the necessary foundation to improving dental health in Florida. The Florida Dental Association (FDA) and the Division of Health (DH) have urged the state legislature, municipal governments, public officials and agencies to give the highest priority to implementing fluoridation.

Bureau of Health Facilities

This Bureau continues to be responsible for the administration of state statutes and rules for the licensure of hospitals, nursing homes, homes for the aged, and homes for special services. It also is charged with the implementation of on-going arrangements between the Division of Health (DH) and the Social Security Administration (SSA), U.S. Department of Health, Education, and Welfare (USDHEW), for certification of providers of health care services for participation in Medicare program. In addition, it certifies health care providers for participation in the federal-state funded Medicaid program under an agreement with the Division of Family Services (DFS). An added assignment is the requirement that the Bureau certify providers of services for compliance with the Civil Rights Act of 1964. A joint responsibility with the Florida Insurance Department (FID) is the certification of services provided by Health Maintenance Organizations (HMOs).

A consistent effort was made by the nursing home program to up-grade physical facilities. The Office of the State Fire Marshal participated through evaluation of facilities with the Bureau's fire safety program. Increased emphasis was given the program by extending nurse consultation services and visits to nursing homes.

As a result of the recommendations of the Pinellas County Nursing Home "Blue Ribbon Committee," appointed by the Secretary, Department of Health and Rehabilitative Services (DHRS), to study conditions of nursing homes in that section, additional workloads had to be undertaken. On April 26, the DH initiated a policy that all nursing home inspections would be unannounced except those for annual licensure and federal program certifications.

The agreement between the DHRS and the U.S. Office for Civil Rights, Region IV, continued in effect during the year. This agreement places within the Bureau the responsibility to conduct an annual Civil Rights Survey on health care facilities participating in one or both of the federal sponsored Title XVIII, Medicare program, and/or Title XIX, Medicaid program. The investigation of complaints concerning civil rights is also encompassed by this agreement. Bureau staff members conducted 494 Civil Rights Surveys in 1974.

Bureau of Entomology

The 1974 mosquito season was one of the worst since the late 1950's. At that time considerable source reduction work had been completed with assistance of state funds. The Division of Health was empowered by law to have sole right to approve or disapprove proposed new source reduction projects, or maintenance of previously constructed works.

The salt marsh mosquito problem was severe throughout the summer months. One of the key factors was the extremely dry spring allowing a buildup of eggs in dry ditches and depressions. These eggs, hatched when such areas were filled with water, creating broods of mosquitoes that continued to deposit eggs that hatched.

The shortage of fuel oil for larviciding and certain pesticides for adulticiding and the increased cost for labor and materials caused many counties and districts to curtail the amount of mosquito control work they would have otherwise performed. A few counties were able to obtain more funds than originally budgeted in order to continue mosquito control throughout the season.

Mosquito control districts and counties are finding it difficult to obtain approval to clean out mosquito ditches which were originally authorized under Chapter 388 F.S. Now, approval of several governmental agencies is demanded before work can be initiated to clean out or construct new ditches. Difficulty and delays in obtaining approvals resulted in very little source reduction work in 1974.

The future outlook of mosquito control does not appear bright at this time. The continued expansion of restrictions applicable to interior wet lands and coastal marshes, and purchase by the state of land considered environmentally endangered, with no visible exceptions for carrying out source reduction measures for mosquito control, indicate greater numbers of mosquitoes may be produced each succeeding year.

COMMERCIAL PEST CONTROL

During calendar year 1974, the Bureau examined 1,049 applicants for pest control operator's certificate and special (fumigation) identification card (compared to 726 in 1973). As a

result, DH issued 372 new certifications of which 203 were additions to existing certificates, 131 were new certificates and 38 were new special ID cards. For fiscal year 1973-74 DH renewed 1,140 certificates and 119 special ID cards in force and good standing; acted upon 145 applications for emergency certificates, *vis-a-vis* 94 in 1972-73, to enable firms losing their certified operator to temporarily continue in business; made 254 fumigation inspections; held seven informal disciplinary hearings on violations and applications for reinstatement of credentials; reviewed 1,279 examination applications; and collected and accounted for all fees.

Dog Fly Studies

Outbreaks of dog flies, *Stomoxys calcitrans*, were atypical in West Florida in 1974. Unseasonable north winds resulted in moderate outbreaks along bayshores on April 19 and on Gulf beaches June 24-26.

Large numbers of flies were observed in wooded areas near the Gulf beaches as a result of northeast winds on August 22, and landing rates at some beach locations reached 15 per minute. However, the winds switched to a southerly direction in the afternoon and flies dispersed inland. This ended the threat of the first major fall outbreak, which normally occurs between August 15 and September 1.

Large numbers of flies invaded Gulf beaches in Gulf, Bay, Walton, and eastern Okaloosa Counties September 18, but this outbreak did not affect other panhandle counties. The first general, typical fall outbreak occurred throughout the coastal areas of West Florida on September 23-24, as a result of the first fall "northeaster" on those dates.

The 1974 dog fly season ended atypically as it had begun. Normally flies are present in annoying numbers in coastal areas until about November 1; however, in 1974 only a few localized outbreaks occurred after October 1. In the early part of October, winds were favorable but no outbreaks occurred. This is thought to be a result of very effective kill of flies on beaches by aerial spraying in September. In the last half of October a high pressure area that was located off the east coast of South Carolina produced easterly and southeasterly winds, which do not result in major dog fly outbreaks on West Florida beaches.

Bureau of Laboratories

Following the Dade County typhoid epidemic, interest in more adequate monitoring of drinking water supplies has resulted in a significant increase in requests for coliform testing of water samples particularly in the Orlando, Miami, Tampa and West Palm Beach laboratories. Full implementation of the federal EPA and state testing requirements should result in a 200 percent rise in these determinations, and a 150 percent increase in bacteriological examinations of shellfish and bathing place water samples.

Although routine chemical analyses were performed in the Central, Miami, Pinellas CHD and Brevard CHD laboratories on a modest number of water, shellfish and other environmental samples, compliance with new federal drinking water and shellfish standards will require increasing the Bureau's capacity for such testing by 200 percent, and the establishment of Central laboratory capability for performing more complex analyses, such as pesticides, trace metals, organics, and other chemical pollutants.

As part of the VD Control Program for detection and treatment of gonorrhea, the laboratory experienced an all-time high with over 631,000 culture and smear examinations. Ex-

The proportion of syphilis serology and enteric culture specimens which yielded positive findings increased, despite a marked decline in demands for these services following discontinuation of the routine health card testing program. These data confirmed earlier indications that health card specimens did not contribute substantially to the total positive findings and thus were not productive as a case finding mechanism. The reduction in workload provided the bureau with badly needed capacity to expand service in other more productive areas.

The policy of discouraging submission of rodents and rabbits for rabies examination resulted in a continued decline (17 percent) in number of specimens received. During the year, 673 rodents and rabbits were examined and found to be negative as has been the experience over the past 18 years. Of the 3,283 animal brains examined, 50 or 1.5 percent were positive. Highest rates were again found in raccoons (9.4 percent), bats (5.8 percent) and foxes (5.0 percent). The unusually large number of raccoons received were related in part to an outbreak in Dade County. It is noteworthy that for the first time in 20 years no dog or cat rabies was reported.

LABORATORY IMPROVEMENT PROGRAM

This activity constitutes the second major program element of the Bureau which is charged by state and federal law with the responsibility of regulating clinical and other laboratories.

Registration of 612 laboratories was accomplished under provisions of the Florida Clinical Laboratory Law, viz., 279 independent, 257 hospital, 22 blood bank, 41 plasmapheresis and 13 public health facilities. While 51 new laboratories were added, 33 previously registered units ceased operation. There were 8,145 personnel licensed, including 1,291 new applicants who qualified under the regulations bringing the number of licenses by category to 304 directors, 1,148 supervisors, 3,268 technologists, 3,425 technicians, and 264 trainee registrants. It is noteworthy that 165 persons upgraded their license to a higher category, i.e., four formerly licensed as supervisors qualified as directors, 44 technologists met the requirements for supervisor, and 117 technicians acquired technologist licenses.

A total of 402 inspections were performed to evaluate compliance with state and federal requirements for initial and continued certification of 134 independent laboratories and 77 hospital laboratories not approved by the Joint Commission on Hospital Accreditation, certification of 26 facilities operating in interstate commerce under the Clinical Laboratory Improvement Act of 1967, and in response to special requests or complaints. Authorization of an additional inspector position this year will permit conducting site surveys of laboratories hitherto not inspected due to lack of field staff.

State support was authorized for continuation of the Implied Consent Alcohol Program initiated with a Governor's Highway Safety Commission federal grant. In addition, the legislature amended the Implied Consent Law by adding a "pre-arrest" test provision, and the Uniform Traffic Control Law by specifying an unlawful blood alcohol level of 0.1 percent and the penalties for operating a motor vehicle at or above that level. The substantial rise in activities this year was due in part to this legislation. New permits were issued to 1,011 law enforcement personnel, bringing the total number of individuals approved to 3,104. Of these, 2,958 were issued valid permits as alcohol breath testing technicians, 72 as breath testing course instructors, and 74 chemists and technologists for performance of blood alcohol analyses.

Bureau of Local Health Services

This was a year of significant change with regard to Bureau personnel, county health directors and county realignments. Dr. David Crane, former Bureau chief, transferred to Brevard CHD as director and was replaced in August by Dr. McGarry. Dr. James F. Speers joined the staff as Deputy Bureau chief about the same time. Lewis Willis, Health Program Specialist for many years, transferred to the Planning Section of the Division of Health. Six new county health directors were appointed in 1974. Charlotte County became a single CHU, leaving Hardee and DeSoto as a bicounty unit. Martin County split off as a single county unit from St. Lucie, Okeechobee County and Flagler County indicated a desire to join St. Johns as a bicounty unit.

The minimum CHD program was finalized in April and all counties are making plans to provide uniform basic programs statewide. A special staff from the Planning Section will monitor the progress of the program and provide cost figures and personnel requirements to fully implement it.

CHDs were successful in expanding their programs despite deepening recession. Contributions from boards of county commissioners exceeded expectations while increases from state general revenues barely kept pace with salary and cost increases. The present average ratio of county to state funding is 56-44. The CHDs continue to utilize the expertise of the Bureau for management and fiscal advice. The Bureau is the ombudsman for the CHDs and enlists the technical aid of all other bureaus to assist in new and present programs. Coverage for administrative and clinical activities is provided by the Bureau at times when a county is without a director. The Bureau helps to prepare yearly operating budgets for CHDs and maintains records of major transactions of personnel changes and advises of fiscal matters by continuous review and budget revisions.

This was the 11th year that federally funded Migrant Health Projects (MHPs) operated under the aegis of the Division of Health (DH). The Migrant Health Services Section provided consultive, advisory, and evaluative services to MHPs in Broward, Collier, Flagler, Glades, Hendry, Hillsborough, Lee, Palm Beach, Putnam, St. Johns, St. Lucie, Sarasota, and Seminole Counties. Federal grants of approximately $2,000,000 plus $37,000 in state funds

provided medical, dental, nutrition and nursing services in projects under local county health department (CHD) direction.

During the year, over $2,440,000 in federal funds were granted to four independent agencies to operate MHPs encompassing Dade, Hendry, Lake, Okeechobee, Orange, Palm Beach and Polk Counties.

During the latter part of the year, the East Coast Entitlement Project, designed to render care to 2,000 migrants as they moved up the stream, was initiated and also Broward County joined Lee in participating in a Migrant Hospitalization Demonstration Program.

Executive Order Number 74-52, signed by Governor Askew on September 23, 1974 transferred all responsibility for the individual sewage disposal program to the Division of Health (DH) and county health departments (CHDs). Administrative responsibility at state level was assigned to this Section and has had significant impact on program direction on the state level staff as well as CHD staff. Chapter 10D-6 Florida Administrative Code (FAC), Individual Sewage Disposal, was repromulgated with several changes, public hearings held on November 21, 1974 and finally filed with the Secretary of State and became effective on December 31, 1974.

This program has caused reevaluation of work loads in sanitation programs in CHDs due to the demand on time of sanitation staff.

Another significant demand on staff time at state level and in CHDs was in the program requiring training for managerial level personnel in food service establishment.

Effective January 1, 1974 the health card requirement was deleted from food regulations in the Florida Administrative Code. This requirement was replaced by a carefully designed training program entitled "Disease Free Food." The four hour course is for management level personnel and the goal is to have one person so trained in each of the more than 27,000 food service establishments in the state. It will then be this person's responsibility to train the employees in sanitary practices and food protection.

Bureau of Maternal Health and Family Planning

SPECIAL MATERNITY AND INFANT CARE PROJECTS

The five Florida Maternity and Infant Care Projects have clearly demonstrated that prenatal care including hospitalization of high risk patients has produced good results. In the 17 counties where the projects are located, infant mortality has dropped dramatically. In most areas, the high risk patients of the MIC projects have better pregnancy records than the average for their counties as a whole.

During the year, the projects served 9,120 prenatal patients, 16,413 family planning patients and 8,372 infant patients.

Nutrition counseling related to normal and modified dietary needs was provided to women in maternity and family planning clinics in 50 counties. Nutrition guidance to family planning patients has increased with newer knowledge concerning the nutritional needs of women practicing conceptive control. Much emphasis has been placed on counseling the adolescent parent.

The Supplemental Feeding Program for Women, Infants and Children was begun in six CHDs and the University of Miami Children and Youth Project in February. Approximately 3,718 women are approved for the current caseload. Program nutritionists have implemented numerous educational tools to help mothers use the program to their best advantage.

FAMILY PLANNING PROGRAM

The Florida Statewide Family Planning Program was committed to decreasing unmet need by 10 percent and to developing a sub-state regional mechanism to stimulate support for, and improve, services.

The Department of Health, Education, and Welfare (HEW), Region IV Family Planning Office reported 225,960 low income women in need of subsidized services in Florida for calendar year 1974. Of these, 118,456 (52.4 percent) were provided services through public health sources; 62,887 were new to the program and 55,569 continued in the program from the previous fiscal year. An estimated 103,166 (87.1 percent) were provided supplies (oral contraceptives, intrauterine devices) and 15,238 (12.9 percent) other contraceptive methods.

Sickle Cell Anemia

Consultant participation in the Florida State Sickle Cell Foundation Board of Directors continued through 1974. Consultation in socioeconomic problems related to sickle cell disease was provided to the state organization of Elks, Brevard Junior College, and United Church Women of Jacksonville. The social service desk also serves as a pivot for coordinating sickle cell activities with the Child Health Section (DH).

CONTINUING EDUCATION OF PREGNANT SCHOOL CHILD (DEMONSTRATION FAMILY PLANNING PROJECT)

Teenage parenthood continues to be a major problem. While there has been a slight decrease in the number of births to older teens, there has been a 13 percent increase to girls under age 15 in the last two years. During 1972 there were 26,608 live births to girls 19 and under with 2,550 of them being 15 years old and younger. In 1973 there were 27,557 births to girls under 19 with 2,905 of them being 15 years old or younger. The data for 1974 have not been completed.

County health departments continue to support efforts to provide continuing education for pregnant students. Two new programs were started this year in Escambia and Pinellas Counties. Classes in Brevard, Leon, Duval, Broward, Lee Sarasota, and Dade served an enrollment of more than 1,661 students.

Reaching Adolescent Parents (RAP)

The RAP program was established in October 1973 with the primary goal to reduce the incidence of adolescent parenthood and the resultant educational, health, and social problems through effective use of existing service systems and resources. Concurrently with continued Bureau leadership, the 31 member Statewide Task Force on Services to Adolescent Parents continued to meet monthly since its inception in July, 1973. The Task Force membership includes staff from the Florida Department of Education (DE), DFS, DH, State Parents and Teachers Association (PTA), Florida Division of Mental Health, other service projects, and adolescent parents. The Task Force serves as an advisory committee to the Bureau in the development of programs for preadolescent and adolescent parents.

Bureau of Preventable Diseases

EPIDEMIOLOGY SECTION

Hepatitis A as well as hepatitis B showed an increase of 14 percent. Broward County had an epidemic outbreak of hepatitis A which diminished the last few months of the year. The advances in the study of this disease lead to the hope that better control measures will soon be developed.

As predicted, influenza B appeared in January. This illness affected the younger age group and was of short duration. In October the first identification of influenza A was made in Dade County. This was a very early appearance of this virus in the state and several counties reported epidemic levels of influenza A in December.

The red tide presence in the Sarasota area persisted much longer than usual. This emphasized the human effects produced from inhalation of the airborne fragments of this organism. The legislature authorized the development of a committed to study this problem but did not provide the necessary financing for its support. The irritations caused by this toxic residual of the organisms had a definite effect on the use of the beaches during onshore winds when the concentrations of the toxin by-products were noted by the persons on the beaches.

IMMUNIZATION PROGRAM

Promotional activities aimed at improving compliance to the Compulsory Immunization Law and increasing immunizations in preschool children continued to have high priority in 1974. Florida again participated in the national "Immunization Action Month" and in addition carried out an intensive promotional and educational program during the spring and summer. One new vaccine was added to the arsenal of public health clinics in September 1974. The mumps vaccine will permit the gradual elimination of the major remaining source of vaccine preventable disease morbidity in schools. The vaccine is also available in combination with measles and rubella and can be administered as a single injection to children above one year of age.

The improved immunization levels in kindergarten and first grade allowed more resources to be directed at infant and preschool children's immunizations.

RADIOLOGICAL AND OCCUPATIONAL HEALTH SECTION

An expansion in the mining and milling of phosphate ores in central Florida prompted a study of the radiation levels associated with naturally occurring radioactive materials. This study, in cooperation with the Polk County Health Department and the U. S. Environmental Protection Agency (EPA), includes an investigation of radiation levels in schools and homes, ambient levels by aerial surveillance over mining areas and analyses of drinking water. Additional field and laboratory instruments and a new chemist increased the capabilities.

New Food and Drug Administration (FDA) regulations, increased uses of investigational radiopharmaceuticals and new radiopharmaceutical compounding kits have increased the workload for licensing of radioactive materials, registration of x-ray machines, inspections and revising of regulations.

The Occupational Health Program is concerned with exposure to toxic chemicals and levels of intensity of physical agents such as noise, extremes of temperature, pressures and light in the work places of Florida citizens.

X-ray Registration

The number of registered x-ray machines being used in diagnosis and therapy by practitioners of the healing arts continued to increase. Of the 11,319 machines registered, 94 percent are used by physicians and dentists, mostly nonradiologists, with little or no training in radiation safety and protection of patients and operators.

Emergency Planning

Activities in this area included one-day training courses, "Management of Radiation Accidents," in Inverness, Citrus County, in March, and at Jensen Beach, St. Lucie County, in May.

In December the Mobile Emergency Radiological Laboratory (MERL) participated in a threatened radiological emergency in Jacksonville associated with an extortion threat. An emergency team from Orlando together with MERL traveled to Jacksonville as a precautionary measure. An aerial survey of the City of Jacksonville was conducted utilizing a police helicopter, and a number of areas with high radiation levels were identified and investigated by monitors on the ground. No radioactivity was released during the emergency.

VENEREAL DISEASE CONTROL SECTION

1974 was a year of significant increases in venereal disease. Infectious syphilis cases numbered 2,915 — an increase of 50 percent over 1973. Gonorrhea reached an all time high in 1974 — 61,507 compared to 52,582 the previous year, which represents a 17 percent increase over 1973.

The explanation for the large increase in infectious syphilis was due primarily to intensified efforts in syphilis epidemiologic techniques by venereal disease consultants.

The gonorrhea culture screening program to detect asymptomatic females surpassed all other states in 1974 in terms of quantity and quality; 538,419 cultures were processed by the Division of Health Laboratories, and 21,882 or 4.0 percent were positive. These cultures were collected from a wide range of providers including many private physicians.

Last year's annual report described intensive efforts to reduce infectious syphilis in Hillsborough County. It was predicted that syphilis morbidity would be reduced to a controllable level in 1974. The prediction was correct. Hillsborough County's infectious syphilis morbidity is down 42 percent in 1974 compared to 1973. In fact, it was the only major area in the state with a significant decrease. Unfortunately, the tremendous numbers of personnel required to conduct such intensified efforts are not uniformly available.

For the first time in the history of the VD Control Program, a significant amount of funding was approved by the legislature — $300,000 for 1974-75 which included 25 new positions and expenses. The funds combined with federal funds provided continuity of program efforts.

The passage of the Comprehensive Health Education Act of 1973 provides for a sequentially planned health education program for students, grades K-12. This will enable the schools to incorporate VD education and other health-related social concerns into a total approach with clearly defined goals and objectives. With the allocation of funds in 1974, state staff and local personnel have continued to assist counties in preparing teachers to provide VD information for students.

VETERINARY PUBLIC HEALTH SECTION

The Section continued to be responsible for a statewide zoonoses control program that relies upon an animal morbidity reporting system involving veterinary practitioners. In June this system was completely revised and the monthly report now disseminates information relevant to zoonoses currently circulating in or threatening the state.

The staff has also placed more emphasis on public relations by providing personnel or material for news releases, DH publications, radio shows, reprint requests, conventions, conferences and seminars. A considerable amount of data collected during the past five years was prepared for publication or formal presentation. In response to a request from the Historical Archives Committee, the staff compiled a chronicle of the Section since its inception in 1948. In February 1975, the Section will host the 1st Annual Conference on Zoonoses in the Southeastern United States and Caribbean. This year also saw the initiation of a semiannual conference for all Florida veterinarians interested in veterinary public health.

Rabies

Fifty cases of rabies in animals were reported in 1974 with 49 (98 percent) being in wildlife. The nonwildlife case occurred in November and involved a cow in Suwannee County. Of the 49 cases among wildlife, 39 (78 percent) were raccoons, five (10 percent) were foxes and five (10 percent) were bats

Ten laboratory confirmed human cases of leptospirosis were reported in 1974. Cases occurred throughout the year with four recorded in September and October. Of the eight cases in which a presumptive infective serotype was determined, six were attributed to *L. canicola* and two to *L. icterohemorrhagiae.* The Animal Morbidity Report recorded 50 cases in large animals and 134 in small animals.

Arthropod-borne Encephalitis

A minimal statewide surveillance program for arthropod-borne viruses was conducted in 1974. Under the coordination of the Epidemiology Section, Bureau of Laboratories, and Epidemiology Research Center, this Section maintained sentinel chicken flocks in Dade, Duval, Hardee, Hillsborough, Pinellas and Polk Counties and a free-flying sentinel mourning dove flock in Orange County.

Bureau of Sanitary Engineering

During the latter part of the year, considerable concern was generated for public water supplies through EPA's release of information on studies in other states regarding the presence of organic contaminates in drinking water served in several communities obtaining water from surface sources. The report further indicated that chlorination of these organic constituents may cause the formation of minute amounts of potentially carcinogenic compounds. EPA is continuing its evaluation on these compounds; however, the proven benefits of chlorination practices far outweigh these possible effects, and the American Association of State and Territorial Health Officials issued a statement reaffirming the need for chlorination.

With the added emphasis created by the organics in drinking water, the 93rd Congress passed the "Safe Drinking Water Act,: PL 93-523", and it was signed into law by President Ford on December 17, 1974. The passage indicates that there is some concern by the legislature and President for the water which people drink, whereas previous concerns had only been directed to the waste side of the cycle. This will also necessitate state legislature looking into needs for public water supply aspects. There are a number of provisions in the law, and the Section's program will have to be redirected in some areas to meet the requirements of this Act. It will be necessary to modify Chapter 10D-4, FAC, to comply with the minimum standards and requirements.

Early in the year, another waterborne outbreak exemplified the fallacy of having placed so much reliance on chlorination when there is not adequate protection of the source. A shigellosis outbreak in Richmond Heights was attributed to the water supply serving the area. This outbreak was apparently brought about by a malfunction of the chlorinator. Estimates by epidemiologists from a survey of diarrheal disease in 75 households projected over 1,000 cases. This and other concerns have stimulated our interest in insuring adequate chlorination and during the year, we issued a Corrective Order to one city for noncompliance. Though we do not have 100 percent compliance with chlorine residual requirements, several cities and other public supplies added chlorinators

and we are continuing to seek compliance. Our concern continues for providing chemical preparation and filtration in areas where water resources are not afforded natural protection. In south Florida we are obtaining the additional protection afforded by this treatment in some supplies, and others are seeking a solution through connection to municipal or community supplies which already have this treatment capability. Public water supplies in Dade, Broward and Palm Beach Counties have until mid-1975 to notify the agency of their intentions to comply. We are analyzing bacteriological records and other data for other areas of the state which might need additional treatment.

Shellfish and Crustacea Control Program

Emphasis continued upon adequate and effective control over the growing, harvesting, processing and marketing of shellfish and picking, packing and marketing of crabmeat.

Reappraisals of shellfish waters in nine counties were accomplished in accord with the National Shellfish Sanitation Program. All field work was by personnel in the shellfish program, regional engineers, representatives from the respective CHDs and five summer students.

Personnel of the Marine Laboratory in Apalachicola engaged in numerous phases of the shellfish and crustacea control program in many parts of the state.

Frequest visits were made to shellfish and crustacea plants to determine compliance with sanitary regulations, collect product samples, water samples for analysis and check water supplies.

Due to time and refrigeration abuse during the summer months, oysters, upon arrival in Florida from Louisiana, were bacteriologically unacceptable and shipments of oysters from uncertified plants in Alabama received immediate attention. All shellfish dealers in the state were notified to cease and desist importation of oysters from Louisiana. This notice went out to all counties within the state, along with notification that all shellfish plants in Alabama were not certified, directing them to take appropriate action wherever shellfish produced in Alabama were found. This ban on Louisiana oysters was lifted September 26 and upon receipt of notice of certification from Alabama, lists of these certified plants were distributed to all counties.

Bureau of Tuberculosis Control

Due to a gradual decrease in census of tuberculosis patients at the hospitals, WTE was closed with phase out beginning June 4, 1974. The last patient was discharged August 30, 1974. The Chronic Inebriate Detoxification Program was also phased out with the last patient being discharged August 30, 1974. The Division of Corrections (DC) medical patients were all moved out September 27, 1974. All employees were either reassigned to other state agencies or laid off except for caretaker staff. The facility was turned over to the Department of General Services effective December 1, 1974. This was approved by the Cabinet on August 6, 1974.

The community care of patients continues to increase with 95.3 percent cumulative cases receiving medical evaluation and treatment in county health department (CHD) clinics. In 1974 more than 42 percent of the 1,460 reported new patients received total care in their home community.

Preventive treatment is recommended for persons identified as infected or at special risk of disease with 63.6 percent of persons started on preventive medicine in 1973 completing the prescribed course in 1974. Adequate and continuous chemotherapy prescribed for persons with infectious clinical disease has resulted in a bacteriologic conversion of positive to negative specimen in 94.4 percent of cases in Florida within six months of report.

The identification and treatment of previously unknown persons with infectious tuberculosis and their contacts can prevent spread of the disease to uninfected persons. In the more populous counties with crowded substandard housing the chances are greater of being infected. During 1974, 83.8 percent of the 1,553 new patients, and 77 percent of the 5,164 persons under medical supervision lived in 18 counties in Florida where such conditions prevail.

X-ray Services

Two 70 mm x-ray units operated by the Section provided detection services in communities identified as being populated with persons at special risk of disease. Program data are reported in Table 2. There were 57,256 examinations with 44 new cases reported, a rate of one case per 1,301 films. CHDs reported 59 new cases found in their 70 mm x-ray programs.

Bureau of Research

The major responsibility of public health is to protect the health of the public utilizing the most appropriate methodology; progress is measured in the development of better methods. In earlier days improved methodology depended upon the astute observations and deductions of individual physicians. Progress in our complex and mobile present day society depends on the results of programs influenced by research findings and modified on the basis of evaluation. As the competition for the scarce medical care dollar becomes increasingly keen, alternative methods for the delivery of medical care services must be developed, compared and modified on an objective basis in order for public health to remain viable and responsive to changing demands and new situations. The principle role of this Bureau is to encourage, foster and assist other bureaus, sections and the county health units to develop studies to meet these needs, particularly in the area of preventive medicine. The cardiovascular risk reversal program in Palm Beach County is an excellent example of cooperative effort which can be developed with suitable encouragement and assistance.

This Bureau also has administrative responsibility for the Epidemiology Research Center (ERC) at Tampa. Financial support for the Center was derived from state and grant funds. The City of St. Petersburg continued to fund virus studies for secondary effluents and sludge, the latter in conjunction with a sod farm project initiated in July 1974. A grant from the Rockefeller Foundation was activated in May 1974 to determine virus survival in cypress domes irrigated with secondary effluents.

During the year, the design of a mobile laboratory was completed which will facilitate immediate on-site laboratory investigations for outbreaks such as occurred in Homestead in 1972. This facility will save time in initiating an investigation and preclude the immediate overload on the Bureau of Laboratories' regional facilities.

A grant request to study the epidemiology of *Naegleria fowleri*, the causative agent of primary amebic meningoencephalitis, was submitted to the Environmental Protection Agency in Cincinnati, Ohio. It has been approved, funded and will be initiated in January 1975.

Bureau of Vital Statistics

The Bureau of Vital Statistics (BVS) is responsible for the statewide system for collection and maintenance of birth, death, fetal death, marriage, dissolution of marriage, annulment, adoption, and legal change of name records.

Last year 345,195 current certificates were filed, an increase of 1.4 percent over the previous year (Table 1). A total of 183,575 requests for certifications or record searches was received, an increase of 13.8 percent over the preceding year. A total of $705,363.61 was collected during the year and forwarded to the State Treasurer. This represents an annual increase of 5.9 percent.

The "Vital Statistics Scoreboard" is published each year to show results obtained in various counties with regard to vital statistics activities. It compares the percentage of birth and death certificates and monthly reports filed on time.

TABLE 1

VITAL RECORDS ACTIVITIES, FLORIDA, 1973 and 1974.

	1973	1974	Percent Change
Current certificates filed	340,320	345,195	+ 1.4
Delayed birth certificates filed	2,352	2,186	- 7.6
Amended certificates filed for adoption	6,744	6,869	+ 1.9
Adoptions reports forwarded to other states	1,785	1,793	+ 0.4
Legitimations processed	1,398	1,480	+ 5.9
Legal changes of name received	1,648	1,878	+ 14.0
Requests for certification or searches			
Total	182,765	183,575	+ 0.4
Fee paid	152,612	149,509	- 2.0
Free	30,153	34,066	+ 13.0
Photocopies made	211,236	228,629	+ 8.2
Birth registration cards made	38,190	42,560	+ 11.4
Fees collected and forwarded to State Treasurer	$665,595.39	$705,363.61	+ 5.9

STATE OF FLORIDA
Hon. Reubin O'D. Askew . . . . . GOVERNOR
DEPT. OF HEALTH AND REHABILITATIVE SERVICES
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FLORIDA HEALTH NOTES was promulgated at an annual average cost of $38,064, or 15.8¢ per copy, to provide health education for the people of Florida.

Division of Health
of the
Florida Department of Health and Rehabilitative Services

Post Office Box 210 Jacksonville, Florida 32201

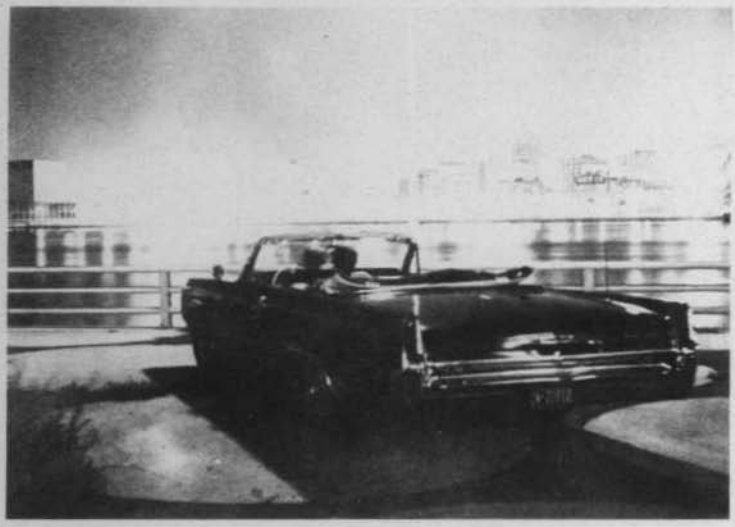
US-ISSN-0015-4105

FLORIDA HEALTH NOTES

VOLUME 67 NO. 6 AUGUST, 1975

Adolescence

Automobiles and money have freed many young people from parental supervision. This underlines the fact that the most frequent threats to the health of young people result from their own behavior. Young people are relatively free of serious medical disorders — infectious and chronic diseases. Yet adolescence is regarded as a very difficult time of life. Conflicts with parents and peers, emotional and behavioral disorders — these are the most common problems at this age. Learning to deal with these special problems should be the goal of everyone who is concerned with young people's health.



Adolescence is a period of rapid growth and development. At no other time of life, except for the first year, do such extensive changes occur in body and personality. The physical changes result from gradual but substantial increases in various hormone levels. In girls, estrogen levels rise sharply, usually at age 10 or 11. By the twelfth or fourteenth year they reach about 20 times their childhood level. To a lesser extent estrogen also increases in boys. This increase is about fourfold, and occurs about two years later.

As a result of these and other hormone increases, the adolescent undergoes rapid and extensive growth in height, weight, muscle mass, and sexual maturity. Nutritional requirements increase. The need for protein, iron, calcium — as well as for calories — is especially high at this time.

Some of the resulting changes are unwelcome. The chemical makeup of perspiration changes, encouraging the growth of bacteria, and resulting in an odor commonly regarded as offensive. The sudden increase in certain hormones leads to acne, and in males the increase in estrogens can produce gynecomastia (excessive development of the male breasts). These conditions can produce untold embarrassment and self-consciousness.

Even desirable changes, such as the appearance of pubic hair and other secondary sexual characteristics, can lead to problems. Some children, because of their upbringing, are ashamed of their sexual development, or frightened due to ignorance. Another cause of trouble is the normal variation in timing, rate and extent of growth. These variations affect the status of individuals among their peers and are viewed as personal assets or deficiencies.

Above all, adolescence is a time of social change. Adolescents become less afraid of parental disapproval, and they become increasingly dependent upon their peers for affection and approval.

This means that parents become less able to control the important decisions of their children and less effective in offering emotional support in times of trouble. Often the adolescent's attempts to break free of parental authority result in "negativism", a tendency to do the opposite of whatever the parent demands.

Along with concern for the adolescent, we should add concern for the next generation. Pregnancies are increasing among the very young adolescents, and more and more children are being born to unwed mothers. More often than not, teenagers approach childbearing age without the knowledge, emotional maturity, and experience required to adequately raise a family. The extended family — in which three or more generations live together — is rare today. Young parents have few places to turn to for good advice on rearing children. There is a growing belief that young people ought to be taught how to be competent parents, just as they are educated for any other career, and that the place to teach them is in school.

Adolescent health problems, whether major or minor, should be viewed with an eye toward the young person's social life. The desire to be normal and accepted is extremely strong; it may even overpower concerns for safety and survival. Teenagers exaggerate and distort their own "blemishes". Minor medical problems, such as acne, can lead to major emotional breakdowns. Developmental disabilities, physical handicaps, mental deficiency, cultural or racial differences — anything which makes a person different — can lead to rejection, loneliness, and breakdown.

Among Floridians ages 15-24, suicide (a category which includes a large number of drug-related deaths) is the third most common cause of death. Accidents (largely automobile) and homicides are, respectively, the first and second most common causes of death. Together, these three causes account for 75 per cent of all deaths in this otherwise extremely healthy group.

These statistics point out the fact that concern for the health of adolescents must emphasize emotional well-being and responsible behavior. Any other approach would ignore the most serious problems.

This issue of *Florida Health Notes* will discuss the problems of adolescence and how these problems relate to health.

FLORIDA HEALTH NOTES

Published monthly by the Division of Health (E. Charlton Prather, M.D., M.P.H., Director) of the Florida Department of Health and Rehabilitative Services. Publication office, Florida Health Notes, 1217 Pearl St., Jacksonville, Florida 32201. Second Class Postage paid at Jacksonville, Florida. Printed since 1892, this publication is for individuals and institutions with an interest in the state's health program. Permission is given to quote any story providing credit is given to the Division of Health.

International Standard Serial Number—US-ISSN-0015-4105

Editor: James L. Sowder, M.A.

Post Office Form 3579 should be mailed to Box 210, Jacksonville, Florida 32201.

Physical Development

The physical changes that take place during adolescence transform the person's body from child-like to adult-like. In boys, the subcutaneous fat often increases just before puberty, and is then usually lost during the growth spurt. Skeletal growth is uneven: the legs generally increase in length before other bones; hips usually widen before the shoulders; these are followed by increases in trunk length and chest depth. Development of secondary sexual characteristics includes the gradual increase in size of the genitalia and changes in the sweat glands. These are followed by the development of pubic and facial hair, enlargement of the larynx and lengthening of the vocal chords (change of voice).

In girls, the growth spurt tends to begin at an earlier age, proceeds at a slower rate, and is lesser in extent. Development of secondary sexual characteristics usually begins with budding of the breasts, followed by the appearance of pubic hair, then menarche (onset of menstruation), and finally ovulation.

These changes seldom occur smoothly. For boys, the sudden and uneven increase in height (often at a rate of four inches-per-year) can result in temporary awkwardness. Often the deepening of the voice is at first marked by embarrassing ups and downs in pitch, which can occur in the middle of words. In girls, the hormone cycles that control the menstrual cycle may require many months to become synchronized. Until this occurs, a girl may experience extensive irregulaity in the timing and extent of flow.

One fortunate change that generally occurs during adolescence is an increased resistance to minor upper respiratory tract infections. Unfortunately, the opposite is true for tuberculosis. Adolescents, particularly girls, are particularly susceptible to tuberculosis.

Tuberculosis is one infectious disease which does not decline during adolescence. Screening tests help discover it in time for early treatment.

Normal vs. Average

In a typical classroom of 15-year-olds, we should expect to find at least one boy who is two years behind average in physical development and another boy who is two years ahead of average. We should expect to find a similar situation among girls. This means that among adolescents of the same chronological age, it is common to find four year differences in developmental age. This typical classroom will contain boys and girls who are juvenile in size, appearance, and sexual maturity; at the same time it will contain boys and girls who are physically adult.

These differences are normal and expected. From a medical standpoint there is nothing to be done and no reason to try. The difficulty arises in trying to explain this to the boy or girl who differs noticeably from the average. For parents and teachers, the years of adolescence are a brief moment. But the youngster lives these years one hour at a time. The youngster who is different — particularly sexually different — can be the object of cruel jokes, name calling, and rejection.

This is the time when the social consequences of physical differences and disabilities are most keenly felt. Both boys and girls worry about their height. Girls worry about their breast development (too little, too much, or asymmetrical), about the shape of their noses; they may worry excessively or inappropriately about their weight. Boys worry about delays in secondary sexual characteristics, about the size of their genitalia, and about physical strength and coordination.

Whatever else may have changed, sports remain important to many young people. Competition is encouraged, and many handicapped youngsters are left out. At this time in life, individual differences are often considered shameful. Blemishes are magnified in the eyes of the young person, and few have the self-confidence to accept themselves as they are.

Developmental Disabilities

Adolescence is a particularly difficult time for the youngster who is physically or mentally handicapped, disfigured, or far from the average in some aspect of development. It is a time when most people are becoming independent of their home. The person who cannot keep up with the crowd, or who is rejected by the crowd, gets left behind. Often, he or she gets into trouble.

Some disorders — such as cerebral palsey, mental retardation, heart defect or disease — may prevent a youngster from participating in a full range of activities. Others — such as epilepsy, diabetes, vision or hearing problems — may require some adjustment or development of compensatory skills. Sometimes a person's adjustment to a disability is outstanding. The disability forces concentration toward areas of strength, and this concentrated effort may be extremely successful. Whenever this is possible it should be encouraged. Often though, disabilities are obstacles to social acceptance and adult independence.

Some problems may be corrected or improved by surgery or other medical treatment. The kind of surgery most often associated with adolescence is cosmetic surgery. At this age boys and girls become acutely aware of irregularities in their ears, noses and teeth. Scars that did not concern the younger child become unbearable. A boy whose breasts develop excessively (gynecosmastia) may doubt his masculinity, or withdraw socially. Girl's breasts may not develop symmetrically. When these, or other conditions threaten to cause severe emotional disorders, plastic surgery may be considered. When proper consideration is given to all the psychological factors involved, this kind of surgery can be extremely rewarding.

The adolescent's height is best left to nature except in extreme cases in which the young person is likely to be subject to ridicule or self-doubt. Treatment is uncertain, and society is becoming more tolerant of short men and tall women. But each case deserves individual consideration, and in unusual cases treatment may be appropriate.

Weight is of great concern during adolescence, especially among girls. The obese girl faces a severe social handicap, and may develop emotional problems as a result. Girls who are not overweight may value slimness excessively, and may be malnourished as a result. The onset of menstruation is accompanied by increased nutritional demands, which must be added to the demands caused by the growth spurt. Iron deficiency anemia may result from crash diets, fad diets, or simply from poor food selection.

Acne

Acne is the most common skin disease of adolescence. Although several factors are involved in causing acne, it results primarily from changes in hormone levels. Testosterone and progesterone (two of the sex hormones) stimulate certain skin cells to secrete sebum (an oily substance, most abundant around the nose and forehead). The process is not fully understood, but it is known that the increase in sebum is associated with an accumulation of older, dead cells and the plugging of pores (the shaft of the hair follicles).

The primary lesions of acne are called comedones, or whiteheads. Comedoes that are exposed to air darken and are called blackheads.

Secondary acne — including papules, pustules and cysts — is caused by bacterial invasion. Acne papules are inflamed areas that protrude above the surface of the skin. They are called pustules when they become pus-filled. The popular name referring to either of these is pimple. A cyst is a more serious inflammation, which is more deeply embedded in the skin.

Acne disorders are classified as mild, moderate, or severe. Nearly everyone at some time experiences mild acne, characterized by oily skin, blackheads, and papules. Moderate cases include many pustules and some scarring. Severe cases include cystic lesions and extensive scarring. Between 10 and 20 per cent of adolescents are thought to have moderate to severe acne.

Neither diet nor personal hygiene play the major role in most acne cases, although they are usually part of the treatment. Most treatments, including sulfur compounds and abrasive soaps, are designed to dry out the surface of the skin and speed peeling. These methods are only mildly effective, and the danger exists that the youngster will overdo them trying to increase their effectiveness.

Estrogen (a female hormone) may be effective in some cases, but it cannot be used to treat males. Also in girls, it may result in stunted growth if used before full growth is attained.

Hereditary factors appear to play an important role in determining the severity of acne. Other factors associated with outbreaks include: emotional conflicts, insufficient sleep, faulty nutrition, chronic infections. Certain forms of environmental pollution may play a role, and excessive iodide and bromide intake or ingestion may increase the severity.

Acne is not a fatal disease, but its importance should not be underestimated. The blemishes and facial scarring affect a youngster's image of himself. In addition, some children are still being taught that acne results from masturbation or sexual fantasies. Even more often they are told that acne is caused by fats in their diets, failure to wash, or failure to use some commercial product. The youngster who accepts false information, or who takes all reasonable precaution and still has acne may become confused and depressed. He may feel guilty and believe that he just is not doing enough.

Acne is an outward sign of a child's sexual maturation. Some children are ashamed of their development or not ready to accept it. They would like to hide it and are particularly embarrassed by blemishes. Also, outbreaks of blemishes often correspond to emotional crises — which adds to their unpleasantness.

When acne causes scarring, or results in psychological problems, it requires medical treatment. In some cases, the most important part of treatment will be the explanations and reassurances offered by the physician. Fears and misunderstandings need to be removed and a reasonable course of therapy started. This help must be offered by someone who takes the problem seriously, who will not dismiss the youngster saying "You'll grow out of it, so forget about it."

Obesity

Obesity is difficult to define. It is not simply being overweight, or "too short for one's weight." Obesity means that fat makes up too much of a person's total body weight. Serious cases are easily identified by observation, but milder cases are best left to the judgment of a doctor. Weighing and measuring are not enough. Charts and tables have their limitations.

Obesity can have many causes, and often it is not possible to tell a person exactly what the trouble is. The great majority of cases result from overeating — from taking in more calories than are burned. However, this leaves unanswered the question of why a person overeats.

Appetite is a great mystery, only partially solved. A person's tendency or desire to eat is controlled by a part of the brain that acts somewhat like a thermostat. For most people it is so accurate that over a period of several months the person eats exactly the right number of calories to maintain a constant weight. (A person who overeats by only 100 calories a day will gain 10 pounds in a year.) This is much more accurate than a food scale and a calorie-counting book.

A person's appetite mechanism can be thrown off accuracy by any of several things: heredity, early training, emotions, and lack of exercise.

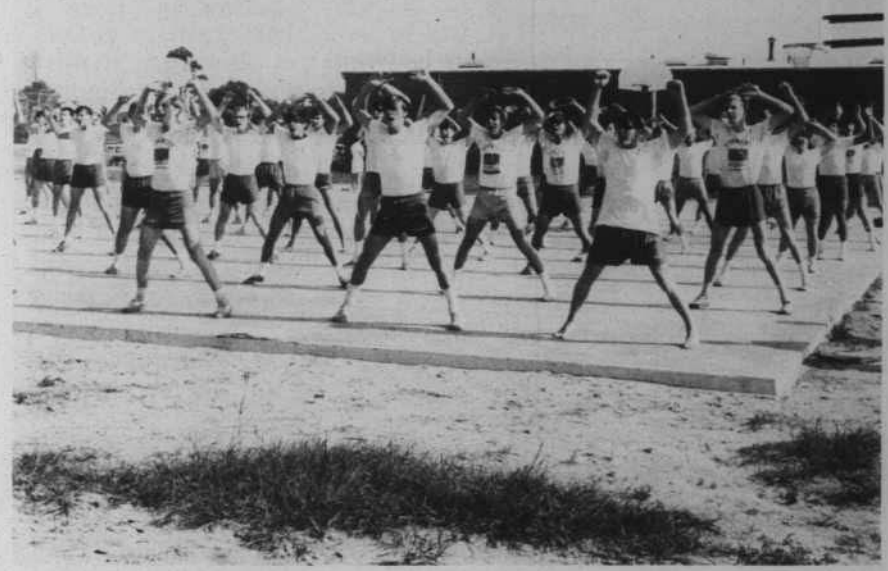
We do not know how much of a role heredity plays in obesity, but it may be a major one. When neither parent is obese, there is only one chance in ten that their child will be obese. If one parent is obese, there are four chances out of ten. If both parents are obese, there are eight chances out of ten their child will be obese. It is possible to breed laboratory animals that will consistently overeat.

But there is also evidence that children who are overfed as infants are likely to become obese adults. The number of fat cells a person will have as an adult can be raised by overfeeding in infancy. Later in life, a person cannot change the number of fat cells, but only reduce their size by eating less. Such a person may feel hungry much of the time, if he is trying to maintain an acceptable weight.

Emotions definitely affect appetite, but the person who drowns his sorrows with chocolate cake may not be as common as previously thought. In fact, some young people with serious emotional problems try to starve themselves. It is possible that some emotional problems result from obesity, rather than cause it. The young person who is rejected and ridiculed may have emotional problems, but he may have been obese first.

Finally, lack of exercise may lead to obesity. For years now, people have been told that you cannot lose weight through exercise, but this is probably wrong. The reason for the confusion is that exercise does not burn as many calories as people would like. You cannot lose pounds in a hurry by running them off.

But exercise appears to have at least two beneficial effects. One effect is that over a long period — say a year — a few hundred calories a day can add or subtract 20 or thirty pounds — enough to make a big difference. The second, and related effect, is that moderate exercise appears to make the appetite control mechanism more accurate. In other words, when you exercise moderately, you eat more, but you do not eat enough to replace the calories you burned. This is not the same thing as trying to lose weight fast through exercise. Exercising to exhaustion is likely to be discouraging and, in the long run, useless.



People who wish to help obese adolescents should probably avoid making a major issue of fat. Nagging, scolding, and shaming are likely to have the opposite of the desired effect. The stigma attached to being fat at this time in life is usually quite enough negative incentive. The obese youngster seldom needs to be told he has a problem.

The primary concern for the obese adolescent must be that of social development. The medical dangers of excess fat are seldom as urgent as the danger that the youngster will withdraw from social activities.

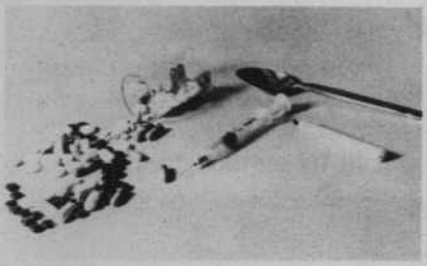
Disobedience, Delinquency, Drugs

Many young people today find that while they are no longer children, they are not accepted as adults. They do not — as kids did in the past — contribute to their family's income. The migration from farm to city has eliminated many vital chores, and child labor laws have eliminated many sources of income. These are mixed blessings. No one wants children doing dangerous jobs, or working 14 hours a day in sweatshops; on the other hand it is difficult to deny the freedom, the responsibility, and the sense of self-worth that go with earning one's way. In the past the transition from child to adult was smoothed by gradually increasing responsibility. Today there are few apprenticeships, and many children have no idea how their parents earn a living. There are few opportunities to observe and participate in adult occupations.

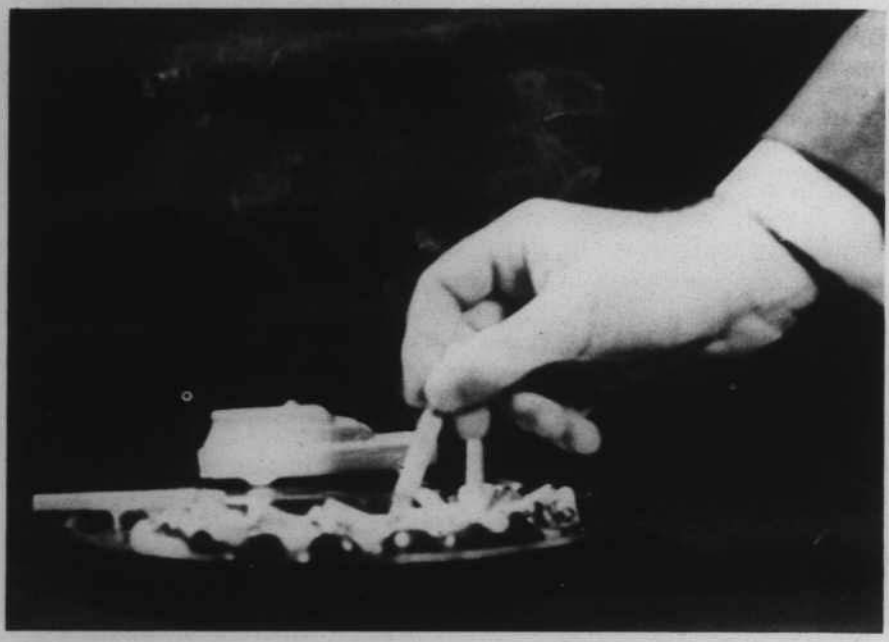
With few places of importance in the adult world, young people have formed a world of their own. In this task they have been aided by increasing access to money and automobiles. They are a power in the marketplace: they buy half of all the records made, a fourth of all the cosmetics and watches, and 20 percent of all the cars. Nearly all of their money is spent on clothes, food and (for the well-to-do) entertainment. A sizeable segment of young people in school do not have to worry about food, housing, or medical care. They have no incentive to save money or spend it wisely; for them, lack of budgeting has no serious consequences.

Few parents are willing to give their children complete freedom; they are understandably reluctant to let their children suffer the real hardships that might result from mishandling adult responsibilities. Many families find an unsatisfactory middle ground: the children have money and cars, and the parents enforce their rules by nagging, or with empty threats.

Not everyone shares in affluence. Many live in substandard houses, and some travel with their parents as migrant farm workers. About 25 percent of Florida's children are medically indigent. Children of the poor are often jealous and often angry. Many reach young adulthood without the knowledge and skills needed to find good jobs. Money is not the only factor determining a good home. Some children out of every income group are abused — beaten or neglected. Most of our violent criminals are believed to come from such homes.



Newspapers, magazines and television have dramatized the drug problems of young people. They have emphasized the illicit and exotic drugs. But the biggest drug problems in most areas are alcohol and tobacco, often closely followed by barbiturates. Many adults use these drugs regularly and legally — and fail to realize they are teaching their children to use them.



For many people the word "teenager" brings to mind disobedience, delinquency, and drugs. Adolescence, they say, is a time of rebellion and foolish disregard for life and property.

It is not hard to find evidence for this view — whether or not it is accurate. In the last decade the use of illicit drugs has spread from the ghetto into middle and upper class homes, and even into rural areas. At the same time the "minor" crimes of vandalism and shoplifting have increased. Discipline has become the number one problem in schools, according to teachers and parents.

The three leading causes of death in the 15-24 age group are accident, homicide, and suicide — all of which are directly related to the individual's behavior. Most of the accidents occur in automobiles, and many of the deaths recorded as suicide are drug-related.

These problems are not new. More than two-thousand years ago the philosopher, Socrates, complained about the unruly youth of his time, who had no respect for their elders. And if Tom Sawyer and Huckleberry Finn were written about today, they would no doubt be called juvenile delinquents. If there is anything new about today's situation, it is probably the frequency and seriousness of the problems, and the rapid and extensive coverage of crime provided by newspapers and television.

The young person today often must attempt to satisfy two sets of conflicting demands. His parents want him safe, obedient to the law, morally upright. On the other hand, neither his friends, nor adults in general conform to these ideals. And there is a wide variety of laws that apply only to the young. Teenagers can be arrested for things which are legal for adults. This differential treatment is difficult for parents to explain and difficult for young people to accept. It is not surprising that many do not accept it.

It is easy to make a list of the causes and cures of adolescent behavior problems. Almost everyone has a theory. The trouble is that the theories and opinions contradict each other. Some say that parents are too permissive; others that parents are too authoritarian. Some say that juvenile courts are too lenient on young lawbreakers; others say that correctional institutions only teach kids how to be more successful criminals. Truancy is a major problem facing schools, but some people say that compulsory schooling is like a prison system; they say that some kids would be better off earning a living.

The sexual behavior of adolescents presents a variety of problems — not the least of which is that adults disagree as to what is acceptable. Many parents find it impossible to talk to their children about sex; they find out what their children are doing only in the event of some serious difficulty. And serious difficulties are occurring much more frequently. The venereal disease rate is rising and is considered to be out of control. Illegitimate pregnancy is also becoming more frequent and affects more and more girls under the age of 15 — along with their sexual partners, many of similar age.

People differ as to whether these problems should be attacked through education or through stricter enforcement of rules. Enforcement of rules has become difficult because of the free movement provided by the automobile. Threats of punishment are often unenforceable.

Young people are often drawn to forbidden activities like magnets. It is well understood (by adults as well as adolescents) that the strictest warnings are attached to the most pleasant vices. There is an element of gambling involved — and even a testing of courage. When young people are asked why they did something foolish — whether it be taking drugs, or driving recklessly — they often say they did not want to be called cowards. In this respect, young people haven't changed much at all. Parents who wish to influence their children's behavior must be aware that their threats may carry less weight than those of their children's friends.

Certain kinds of deterrents have disappeared or become less important to young people. Girls, for example, do not worry as much as they used to about protecting their "reputations." Illegitimate pregnancy is sometimes shrugged off as a temporary inconvenience, and some young people consider venereal disease less troublesome than a cold. The automobile has freed young people from parental supervision, and money is easily obtained for cigarettes, alcohol, or other drugs.

Motor vehicle accidents account for a disproportionate number of deaths among young people. Males aged 15-24 have far more than their share of accidents — a fact reflected in their high insurance rates.

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The view of teenagers as spoiled brats or delinquents is probably distorted. It is difficult to separate increases in misbehavior from the increasing sensitivity of our society, and from the greatly increased coverage by the news media.

The great majority of kids turn into responsible adults. This is particularly true of those kids who are most "spoiled," who have the most advantages. Even those who encounter the law through shoplifting, vandalism, or drug experimentation will ,more than likely, become good citizens.

A survey of 10,000 Philadelphia boys has revealed that almost a third of them had some encounter with the law, but most did not become habitual lawbreakers. Most of the violent crimes were committed by a small minority — about five percent of the entire group.

Other studies have shown that many of the violent criminals in our society were abused as children — beaten, neglected, or abandoned. This does not excuse their behavior — nor is it acceptable for one child in twenty to become a hardened criminal. It suggests, however, that early childhood may be the point at which the most effective efforts can be made at correction.

It may be true that children today are less inclined to obey their parents. It may be true that they are less disciplined in school. But there is little evidence that the average parent is turning out future criminals.

The affluence of our society provides many young people with both the means and the incentives to behave foolishly, even dangerously. It also arouses jealous resentment in those who do not share in this affluence. Today's young people face a rapidly changing world with ideas, products and values pulling in all directions. Much of what looks like disobedience or lack of discipline simply reflects the difficulty of making decisions among conflicting alternatives. By any reasonable standards, today's young people are holding their own. Despite the turmoil in our society, most are surviving, as they have in the past. They cannot hope to please everybody, but they are becoming decent people with a deep interest in the future of their world.

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Post Office Box 210 Jacksonville, Florida 32201

US-ISSN-0015-4105

FLORIDA HEALTH NOTES

VOLUME 67 NO. 7

SEPTEMBER 1975

Emergency Medical Services

ACCIDENTS, DISEASES, DEATH

Accidents are the leading cause of death among persons from age one to age 44. Among persons aged 45 and older, the leading cause of death is heart disease. Homicides and suicides are the second and third most frequent causes of death in people aged 15-24.

Many of these deaths are unnecessary. Medical Examiners and Pathologists, who study the causes of death, have estimated that about 10 per cent of all deaths could have been prevented by faster or better medical treatment.

Emergency care is among the most neglected areas of medicine. Only in the last decade has attention been focused on the problem. This is unfortunate, because in cases of accidental injury or cardiac arrest many deaths occur in the first hour—50 per cent before the patient reaches the hospital. It is believed that in terms of saving lives, money spent improving emergency medical services may have a greater effect than in any other area of health care.

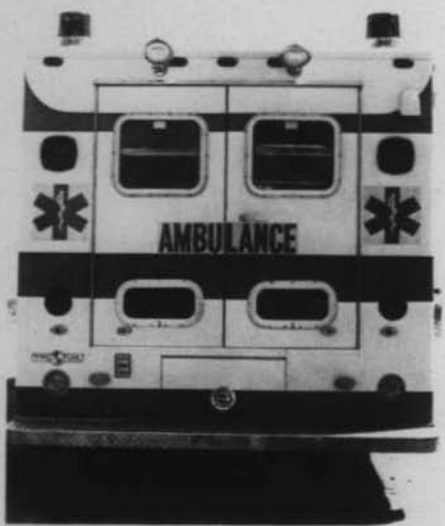
A survey completed in Florida in 1973 compared the injuries-per-death ratios of all the counties. Those counties which were judged to have good emergency medical service facilities had far fewer deaths for a given number of injuries. In fact, in some counties, a person injured in a highway accident was four times as likely to die from that injury than in a county with good services.

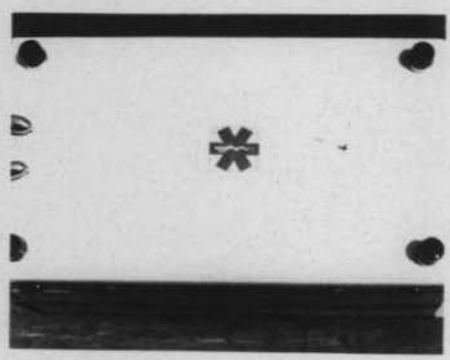
Based on the available data, it is estimated that at least 2,000 lives a year could be saved by improving emergency medical services in Florida.

COVER — The dispatcher will play an increasingly important role as the state converts to the "911" emergency telephone system. Dispatching of fire, police, medical, and all other emergency agencies will be centralized. In a few years all Floridians will be able to summon any kind of emergency help from a single source by dialing "911."

THIS PAGE—Uniform standards are now required of all ambulances. These photos show the markings that are required. This particular ambulance travels from county to county to demonstrate the best available equipment and procedures.

Photos Courtesy of M. A. Ghelerter





DISTANCE, PEOPLE, FINANCES

Florida must solve many problems — some of which may be unique in the country — to achieve a good EMS system.

For example, Florida is a state of great distances. Key West is more than 800 miles from Pensacola and more than 150 miles from the major medical centers in Miami. Monroe County (which includes the Keys) stretches for 120 miles, with a thin lifeline of narrow bridges connecting half a dozen population centers. Some rural towns are more than 80 miles from a hospital.

Florida is a vacation state. There are often many more people present than the population figures indicate, and the highways are heavily traveled. Florida also has a higher than average proportion of retired persons, and these older citizens are more likely to need emergency medical services.

Florida is not a rich state. It ranks 25th in per capita income. Only two of its 67 counties have a per capita income higher than the national average. Some of the larger communities have developed excellent EMS systems, but many counties — especially those in rural areas where long distances add to the cost — have been unable or unwilling to provide adequate services.

These problems are being overcome. The Florida Emergency Medical Services Act of 1973 established uniform and comprehensive standards for EMS systems throughout the state. This issue of *Florida Health Notes* will discuss the improvements being brought about as a result of this legislation — the improvements in equipment and communications and the training of Emergency Medical Technicians. It will also discuss the state's role in funding these improvements, the development of a new medical specialty for emergency physicians, the training of citizens in first aid and cardiopulmonary resuscitation, the Mobile Ambulance Demonstration and Training Team, and the Health Mobilization Program.

FLORIDA HEALTH NOTES

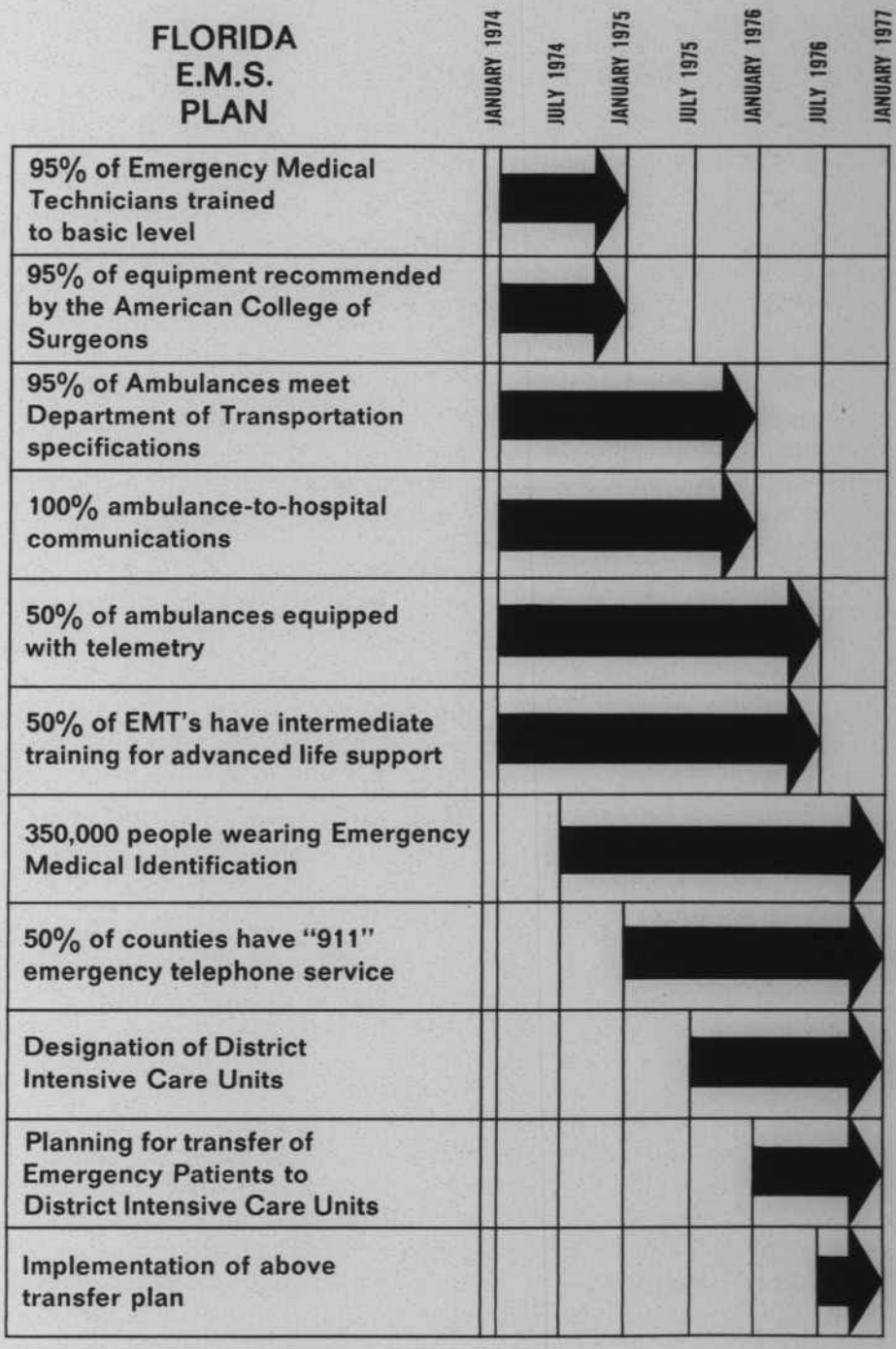
Published monthly by the Division of Health (E. Charlton Prather, M.D., M.P.H., Director) of the Florida Department of Health and Rehabilitative Services. Publication office, Florida Health Notes, 1217 Pearl St., Jacksonville, Florida 32201. Second Class Postage paid at Jacksonville, Florida. Printed since 1892, this publication is for individuals and institutions with an interest in the state's health program. Permission is given to quote any story providing credit is given to the Division of Health.

International Standard Serial Number—US-ISSN-0015-4105

Editor: James L. Sowder, M.A.

Post Office Form 3579 should be mailed to Box 210, Jacksonville, Florida 32201.

VOLUME 67 NO. 3 MARCH 1975


FLORIDA
E.M.S.
PLAN
JANUARY 1974
JULY 1974
JANUARY 1975
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JANUARY 1976
JULY 1976
JANUARY 1977
95% of Emergency Medical Technicians trained to basic level
95% of equipment recommended by the American College of Surgeons
95% of Ambulances meet Department of Transportation specifications
100% ambulance-to-hospital communications
50% of ambulances equipped with telemetry
50% of EMT's have intermediate training for advanced life support
350,000 people wearing Emergency Medical Identification
50% of counties have "911" emergency telephone service
Designation of District Intensive Care Units
Planning for transfer of Emergency Patients to District Intensive Care Units
Implementation of above transfer plan

THE ELEMENTS OF EMERGENCY MEDICAL SERVICES

Discovery and Notification:

Quite often, the outcome of a medical emergency depends on the speed with which competent help can be obtained. In a few cases not much can be done to speed the process — if, for example, the emergency occurs at a time or place where there are no witnesses.

More often, however, delays are caused by shortcomings in the communications systems. On many superhighways there are long stretches without telephones. And in most communities there still is no single number to call for help. There are many kinds of emergencies — auto accidents, poisonings, heart attacks, fires. Sometimes several rescue agencies must be notified for a single emergency, and problems occur in reaching all of them in the shortest possible time.

Communications Network:

To be most effective, all components of the emergency medical services should be linked by two-way radios. In this way a central dispatcher can send the appropriate equipment and personnel to the scene, avoiding delays and duplication of effort.

Also, the vehicles should be equipped to communicate with the hospital emergency room. This enables the hospital to prepare for the specific kind of emergency it is about to receive; it enables an emergency physician at the hospital to advise the ambulance attendants as to proper treatment; it allows special equipment to transmit data concerning the patient's vital signs.

On Site Assistance:

In addition to notifying an emergency agency, those who discover the victim must frequently begin effective care until better trained persons arrive. For this reason there is increasing emphasis on educating the public in first aid and cardiopulmonary resuscitation (CPR). This includes artificial ventilation (breathing) and artificial circulation (external heart massage).

Emergency medical technicians must be proficient in these techniques. They must be able to remove people from wrecked vehicles, evaluate medical emergencies so that life-sustaining treatment can begin, and perform the necessary treatment correctly.

Transportation of Patients:

The victim must be moved promptly from the scene of the emergency to a facility for definitive care. The vehicle's speed capability is less important than its capability for continuing treatment *in transit*. The vehicle must serve as a mobile emergency room. It should have enough room for a technician to work comfortably while standing nearly upright, and to perform CPR or other procedures. Oxygen equipment is a requirement, and depending on the technician's level of training, more sophisticated equipment may be included. Also required is communications equipment.

Hospital Emergency Department:

The hospital should be ready to receive emergency patients and should be capable of providing medical care beyond that given by the ambulance technician at the scene of the accident. Life threatening conditions are corrected, the victim's condition stabilized, and a diagnosis made so he may receive follow-up care. He may then be transferred to specialized facilities, if necessary.

There are now physicians who receive special training to work in the emergency department. They are relatively rare now, but their numbers are expected to increase. Their association is the American College of Emergency Physicians.

Definitive Care:

After the patient's condition has been stabilized, he is usually admitted to the hospital for care and supervision until he recovers. Large hospitals have coronary care units, intensive care units, respiratory care units, and trauma centers. Here, specialists are available to provide more sophisticated treatment. Because only the larger hospitals have these special units, victims of emergencies must sometimes be moved from small hospitals to the metropolitan medical centers.

FROM THE BEGINNING

Emergency medical service was born in the noise and smoke of battle — the outgrowth of temporary field hospitals and crude efforts to remove the wounded from battlefields. It evolved into a sophisticated system of emergency medical care and transportation.

The development of this system was a major factor in the progressive decrease in the death rate of battle casualties. This death rate declined from eight per cent in World War I to 4.5 per cent in World War II to 2.5 per cent in Korea and less than two per cent in Vietnam.

The military's success with emergency medical service did not greatly influence civilian policy until recently. Less than a decade ago, accidental death and disability was called "the neglected disease of modern society."

Little is known about the effectiveness of early ambulance services. Local funeral directors first provided transportation for the ill and injured. They usually were the only ones in town who had vehicles capable of carrying patients horizontally. Sometimes a scheduled funeral service conflicted with the need for emergency transportation.

Some commercial services were represented by the owner of a crossroads garage — who upon hearing about an accident, dropped his auto work, raced to the scene, pulled the victims from the wreck, piled them in his ambulance (which was poorly equipped) and raced 20 miles over bumpy roads to the nearest hospital with his emotions high on adrenalin and his foot heavy on the gas pedal.

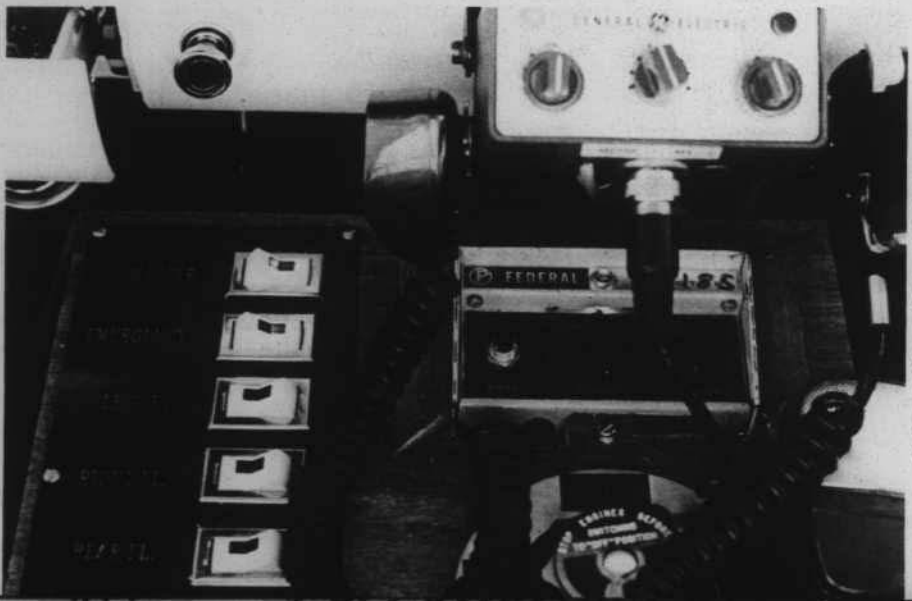


Photo Courtesy of W. F. Papke

In 1966, as a result of the Federal Highway Safety Act, Florida embarked on a program known as the "Certification of Ambulances." Ambulances were required to have certain minimal equipment, and attendants were required to take the American Red Cross first aid training course.

The Certification (licensing) of Ambulances Program was a step in the right direction, but a 1970 survey by the Division of Health and the Florida Regional Medical Program revealed many areas of inadequacy — among them:

- Ambulance attendants were inadequately trained in many communities;
- Ambulances and their equipment were unsatisfactory;
- Communications systems were almost completely lacking;
- Public support and tax monies were inadequate.

In 1971 the Governor's Highway Safety Commission funded a special project in the Division of Health to combat some of these inadequacies. Specifically, the objectives were to establish high quality training for Emergency Medical Technicians on a statewide basis, and to create community advisory councils in those areas of the state which most needed improvements. During 1971, 600 EMTs were trained, eight community advisory councils were formed, a state advisory council was established, and the Florida Registry of Emergency Medical Technicians was created.

In 1972, another grant from the Highway Safety Commission provided funds for continued training of Emergency Medical Technicians. It also allowed further development of the community advisory councils, and the development of an Emergency Medical Services Data Base, which included patient report forms and other sources of data.

In 1973 and 1974 laws were passed which have completely changed this picture. Rather than continuing to attack the problems little by little, these laws demand the upgrading of all services to meet comprehensive and uniform standards. These standards include the ambulances and their equipment, the training of ambulance personnel, effective communications networks, and improvements in hospital emergency services. These laws have also provided the funds required to make these improvements.

THE STATE'S ROLE IN EMS

Under the 1973 laws the state assumes increased responsibility for:

- Registration of Emergency Medical Technicians;
- Inspection of ambulances and operating procedures, and issuance of ambulance service licenses;
- Enforcement of minimum standards for ambulance sanitation, upkeep, and issuance of vehicle permits;
- Enforcement of minimum training standards for attendants and drivers;
- Enforcement of minimum standards for vehicle design, construction, equipment and supplies.

Administrative responsibility for the EMS Program was assigned to the Division of Health, Department of Health and Rehabilitative Services.

Under the law an EMS Advisory Council was formed to advise the conduct of EMS activities, its programs, policy developments and priorities. It will also alert state agencies to new problems and developments in the field; it will annually review the development of plans, budgets and regulations, and encourage cooperation among all emergency medical services, public and private.

Photo Courtesy of W. F. Papke

FIRE, EMS, POLICE — Effective emergency services require the cooperation of all agencies. A major goal of EMS is to train all rescue and emergency personnel in the basics of first aid and CPR. This will enable the closest unit available to begin effective treatment without delay.

The State Advisory Council consists of 19 members — two from the legislature and 17 appointed by the governor from candidates in specific medical fields and state agencies. Each county has an EMS coordinator, who is responsible for the coordination of services in his county and the inspection of ambulances and ambulance services. There are seven EMS Regional Representatives who work with the county coordinators in their region, with the services themselves, with the local EMS Advisory Councils, and with the training centers.

GRANTS FOR EMERGENCY MEDICAL SERVICES

Among the more important laws passed with regard to Emergency Medical Services was the EMS Grant Act of 1973. This act recognized the fact that many counties would not, by themselves, be able to finance the kind of improved services required by the related laws.

The law provides for grants to the counties, provided that the counties raise equal matching funds. Guidelines for disbursement of these funds are based on the following considerations:

- The requirements of the community to be served;
- The meeting of state standards for vehicles and technicians;
- The meeting of standards for equipment and supplies;
- The existence of radio communications linking vehicles with their operating base and with the primary receiving hospital.

Additional emphasis is placed on the desirability of services being provided on a county, multicounty, or area-wide basis; the desirability of a single provider or coordinated provider system; the desirability of coordinating all communication links, including police, fire, emergency vehicles, and related services.

In 1973 the State Legislature appropriated $400,000 for grants to county EMS systems. These funds were granted in 1974 to 23 counties. A total of $2.4 million has been appropriated for disbursement during 1974 and 1975 on a 50-50 matching basis.

The EMS program has received a Federal Planning Grant to develop a comprehensive state EMS plan. This is a necessity to receive Federal funding to assist in the implementation of the state plan.

Imagine the following:

As a visitor in an unfamiliar town you witness a serious automobile accident. You rush to the phone to summon help . . .

But who to call first? The police? An ambulance? You reach into your pocket for change. You only have enough for one call . . .

You decide to call the operator. The seconds drag while you wait for her to answer. You tell her about the emergency.

"Did you wish to notify the Police Department, or the Sheriff's office?" How are you supposed to know, you say.

"Where is the accident located?" she says. You can't answer that, either.

"I think your best bet is to call the Sheriff's office," she says. "The number is . . ." But wait! you say, you only have enough change for one call.

"I'll dial it for you," she says helpfully. How many minutes have gone by, you wonder, and still no ambulance summoned.

The Sheriff seems more helpful. You describe as best you can where you are; he seems to recognize the landmarks. At last, you think, help is on the way. By the way, you ask, what about an ambulance?

"They're listed in the Yellow Pages," says the Sheriff.

Now you begin to panic. Why is so much time being wasted? You explain that you don't have any more money for phone calls. Won't he please call one?

"What company do you want to call?" asks the Sheriff. Good heavens! How can he expect you to make that decision. "Just pick one," he says. "I'm not allowed to make recommendations. But I wouldn't call Ajax Ambulances. I think they're busy today with a funeral."

A BETTER STORY — A modern, well equipped rescue unit responds to a cardiac emergency. The patient, who has a history of heart trouble, complains of shortness of breath, pains in the chest, and numbness in his arms. After verifying adequate pulse and blood pressure, the EMT's lift the patient into the litter-stretcher (1). An I.V. is started, and the patient prepared for an on-the-spot EKG (2). A second EMT adjusts a telemetry device so that the EKG can be transmitted to the receiving hospital (3). The hospital, which has been in constant radio communication with the EMT's, receives the patient (4). Inside the hospital, a fully equipped cardiac resuscitation room awaits the patient, if necessary (5).

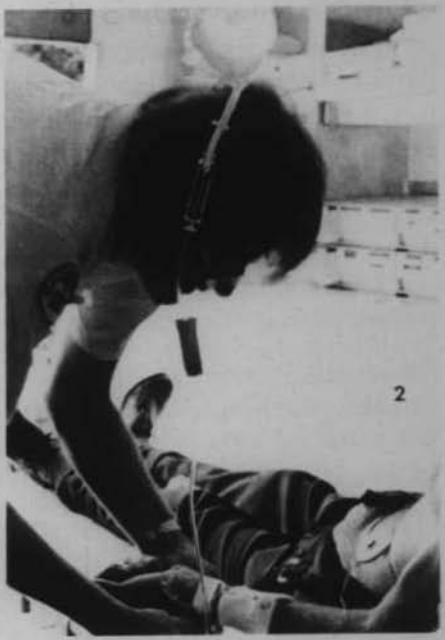
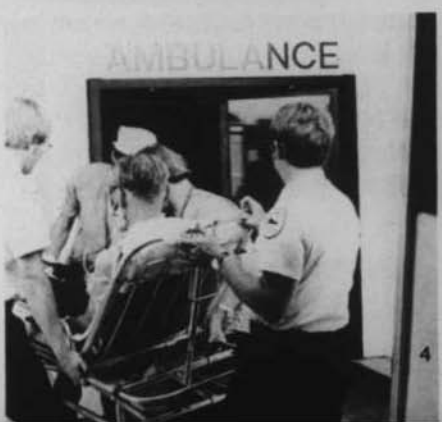


Photo Courtesy of W. F. Papke



COMMUNICATIONS

There are two essential elements to an emergency communications network. One element is a radio communications network linking the emergency vehicles with a central dispatcher and, in the case of ambulances, with the receiving hospital. Included in the radio network is telemetry, a method pioneered in the Space Program, of sending data on vital functions (such as heartbeat, blood pressure) over radio channels to a hospital physician.

A second element is a telephone system which employs a single toll-free number for all emergency calls.

Radio and Telemetry:

Most ambulances are now dispatched by radio. In addition, 85 per cent of Florida's ambulances now have two-way radio communication with their primary receiving hospital. The goal for the near future is 100 percent.

Some ambulances and hospitals are linked by telemetry. With the aid of special electronic equipment, the EMT can transmit to a hospital-based physician, information such as heart activity and blood pressure. The doctor at the hospital can then direct a course of emergency treatment. More and more ambulances are equipped with drugs, heart defibrillators, and technicians with the extra training needed to perform advanced procedures.

Eventually the Emergency Medical Services networks must be tied in with other life protective services, such as police and fire department networks. In this way the various agencies can pool their frequencies, personnel, and equipment, and their efforts can be better coordinated.

There are numerous problems to solve in bringing about such a network. Among them are the following:

- There are a limited number of radio frequencies available for dispatching and telemetry;
- Most Florida cities have their own police departments and communications systems;
- Radio signals do not respect political boundaries — much planning is required to avoid having systems interfere with each other;
- Hospitals must be convinced to come into the system;
- There are approximately 20 telephone companies doing business in Florida, some of which overlap county lines with their service.

911:

Among the most important pieces of EMS legislation was the Florida Emergency Telephone Act of 1974. The intent of this law is clear and to the point:

> The legislature hereby finds and declares that it is in the public interest to shorten the time required for a citizen to request and receive emergency aid. There currently exist thousands of different emergency phone numbers throughout the state. Provision for a single, primary three-digit emergency number through which emergency services can be quickly and efficiently obtained would provide a significant contribution to law enforcement and other public service efforts by making it easier to notify public safety personnel. Such a simplified means of procuring emergency services will result in the saving of life, a reduction in the destruction of property, and quicker apprehension of criminals. It is the intent of the legislature to establish and implement a cohesive statewide emergency telephone number "911" plan which will provide citizens with rapid direct access to public safety agencies by dialing the telephone number "911," with the objective of reducing the response time to situations requiring law enforcement, fire, medical, rescue, and other emergency services.

This telephone number is the part of the emergency communications network which the public will use. Implementing this telephone service requires the solution of many behind-the-scenes problems. Problems of agency jurisdiction must be ironed out; the telephone companies must plan and install new equipment; problems of funding must be worked out among districts with overlapping government boundaries; there will be problems of running a single dispatching service for an assortment of emergency agencies.

The most important results of this effort will be increased visibility and improved public access to emergency services. People will not have to decide — while in a panic — which agency to call; they will not have to thumb through the directory trying to find out under what name an agency is listed; they will not have to explain their problem several times to several people in order to reach the right agency. Also, people will not have to be aware of all the specific kinds of agencies in order to obtain the right kind of help.

TRAINING OF EMERGENCY MEDICAL TECHNICIANS

When Florida's medical services were surveyed in 1970, only about half of the 1700 ambulance personnel were trained in first aid (regular or advanced Red Cross training, or its equivalent). This poor showing was quickly corrected after passage of the EMS legislation in 1973. By July 1, 1975 there were over 7000 fully certified Emergency Medical Technicians in the state.

These people have successfully completed at least 81 hours of training, which includes 10 hours of observation and participation in a hospital emergency room. The basic course is founded on the guidelines of the U.S. Department of Transportation. There are 35 centers offering this basic training, and a number of communities have initiated Emergency Medical Technician II programs. By the end of 1974 approximately 300 students were receiving training above the EMT I level. One college has offered a curriculum devised by the American Medical Association and the American Association of Junior Colleges. This curriculum includes 65 hours of college credits and culminates in an Associate's degree. Three other junior colleges are offering advanced training in cardiopulmonary resuscitation, drug administration, endotracheal intubation, and administration of intravenous injections.

The State Fire College at Ocala offers courses in advanced emergency extrication, which teach ambulance and rescue personnel how to remove people from wrecked automobiles, burning buildings, water, or anywhere they might be trapped.

In addition to formal courses offered by community colleges, nearly all of the progressive emergency medical services carry on inservice training for their employees. This consists of classes taught by physicians, nurses and special training officers employed by the ambulance services, and held at the service's headquarters or at a local hospital. Under the new state law, the Emergency Medical Technicians must renew their certificate every three years, after successfully completing a refresher course, or a sufficient number of continuing education units.

MOBILE AMBULANCE DEMONSTRATION AND TRAINING TEAM (MADTT)

The Mobile Ambulance Demonstration and Training Team was set up in 1974. A model ambulance was built, equipped with the most modern equipment, and staffed with highly competent Emergency Medical Technicians. The MADTT is funded by the Florida Regional Medical Program, the Florida Medical Association, and the Division of Health. During fiscal year 1975-76, funding will be provided by the Florida Regional Medical Program and the Governor's Highway Safety Council. It is available without charge to rural counties.

The MADTT demonstrates quality services and serves as a guide to counties in setting up systems. The team stays in a county for two to six weeks — making actual runs to demonstrate the improvement in service which is possible when the proper elements are available.

PUBLIC INVOLVEMENT IN EMERGENCY MEDICAL CARE

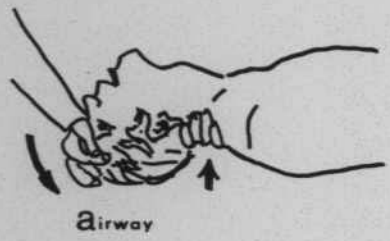
A basic goal of EMS is to encourage the public to learn basic life support procedures. No matter how quickly an emergency agency can respond, many more lives can be saved if someone at the scene of the emergency begins caring for the victim. For example, when a person's heart stops, circulation must be restored immediately. If more than 4 minutes elapse without blood circulation, the victim will almost certainly be dead from irreversible brain damage. In actual practice, artificial circulation and artificial breathing should begin within the first minute of the emergency.

Sudden death from heart attack is the most serious medical emergency in the United States today. More than a half-million persons die each year from heart attacks, and more than half of these deaths occur before the victim reaches the hospital. It is likely that many of these deaths could be prevented by prompt, appropriate treatment.

There are many other emergencies in which prompt first aid may save lives. The most acute emergencies are those in which the victim has stopped breathing, or has experienced cardiac arrest. In these cases, persons on the scene must begin treatment, or a large percentage of victims will be lost.

If these goals are to be met, a large number of nonprofessional people must be trained in basic life support procedures and first aid. People must know how to breathe for a victim and how to circulate his blood.

Artificial breathing and circulation are combined in a procedure called cardiopulmonary resuscitation (CPR). Breathing is performed mouth-to-mouth, and circulation is produced by applying pressure rhythmically to a specific point on the person's chest. Training for this procedure is conducted by certified instructors, according to standards by the American Heart Association.



a irway

b reathing

C irculation

THE ABC's OF CPR — (Cardiopulmonary Resuscitation) This procedure, when performed by a trained individual, can keep a person whose heart has stopped alive long enough to reach a hospital — or until EMT's arrive with advanced resuscitation equipment. The long-term goal of the American Heart Association is to reach all emergency personnel, and as much of the general public as possible, with this training.

In 1973 the American Heart Association and the National Academy of Sciences — National Research Council sponsored a National Conference on standards for CPR and Emergency Cardiac Care. Among the recommendations of the Conference was the need for public education, support, and training.

> Basic life support CPR training programs must be extended to the general public, starting with specific need groups such as policemen, firemen, lifeguards, rescue workers, high-risk industry workers, and families of cardiac patients, and then expanded to include training of school children and other segments of the general public. The American National Red Cross, medical organizations, and other agencies concerned with lifesaving will participate in these programs.

Potential victims of heart attacks must be educated to recognize the usual manifestations — persistent chest-shoulder-arm pain, sweating, nausea-vomiting, palpitation, fatigue. They must know how to gain access to help; they must formulate plans for emergencies.

INTENSIVE CARE UNITS

Recently a $350,000 grant from the Federal Department of Health, Education and Welfare has been made available to assist in the development of Intensive Care Centers and the essential implementation of Area Management Structures. Such area systems will assure that major emergencies will have available rapid access to centers that have the capability for providing adequate care.

It has been found, for example, that 50 per cent of paraplegia or quadriplegia can be prevented if an injury victim receives skilled care within the first four hours after injury. It is conceived that in each of the health care areas where the problem justifies it, there will be one or more centers capable of caring for neonatals, burns, trauma, or psychiatric emergencies. The regional management structure will identify such centers and assure availability of transportation.

HEALTH MOBILIZATION PROGRAM

This program is concerned with survival of people in time of disaster. It has the following components:

Medical Self-Help:

Medical self-help training is designed to help people prepare for survival if disaster strikes and no doctor is available.

Instructor kits which contain everything needed to teach the course and student supplies are available through Health Mobilization. These materials are supplied free of charge to the user. The goal in Florida is to teach medical self-help to one member of each family.

On-Site Assistance Program:

This is a State/Federal program administered by the Florida Defense Civil Preparedness Agency. One person from the Health Mobilization office assists the DCPA in this program. It is designed to jointly assess the following:

- What is the status of disaster preparedness in the local government?
- What is the existing level of operational readiness in the local government?
- Realistically, what can be done to increase the local government's capability to respond in an emergency?
- What State/Federal assistance can be obtained to increase this capability?

Through this program, recommendations are made for improving a county's disaster preparedness posture in health related fields.

Medical Stockpile Program:

This program includes responsibility for 41 Packaged Disaster Hospitals (PDH), three Natural Disaster Hospitals (NDH), 54 Hospital Reserve Disaster Inventories (HRDI), 2,000 cots and 4,000 blankets.

A Packaged Disaster Hospital is a complete 200-bed hospital in crates and boxes. These hospitals are strategically stored throughout Florida from Pensacola to Miami.

Natural Disaster Hospitals are smaller units consisting of 50 beds. Two are stored in the Florida Keys, and one is stored in Cross City.

Hospital Reserve Disaster Inventories are medical supplies in increments of 50-, 100-, and 200-bed units. These are stored in community hospitals throughout Florida. Rotation of expendable supplies has been partially established. The community hospital is supposed to use the supplies and replace them with fresh stock.

Community Disaster Exercises:

An excellent way to determine the capabilities or deficiencies of an agency responsible for disaster preparedness is to stage a Community Disaster Exercise.

A simulated disaster, such as a tornado, fire, train wreck, etc., is staged. Live casualties are used for victims. These victims are made up with simulated broken bones, lacerations, abrasions, burns, etc., with instruction to act the part of an injured person. All agencies, such as police, fire, ambulance companies, health, sheriff's department, and others, are alerted and the game is played as if a real disaster had occurred. It is good training for all, but there is specific emphasis on: first aid at the scene; emergency communications; transportation of casualties; hospital emergency facilities, staff and equipment; and the degree of coordination among agencies existing in the community for coping with situations involving a large number of casualties resulting from a disaster of any kind.

Health Resources Management:

"Health Resources" means manpower, material, and facilities required to prevent the impairment of and to improve and restore the physical and mental health conditions of the civilian population, in support of emergency health services.

Periodically, it is necessary to test our Health Resources Management Plan. Health Mobilization is responsible for this test as well as keeping the plan current. This is usually a state-wide test under the auspices of the Division of Emergency Government.

County Health Departments' Annex VI — Basic Emergency Operating Plan:

Health Mobilization reviews and approves or disapproves all county health departments' Annex VI to the Basic Emergency Operating Plan. Constructive guidance is given to the health departments. Updating of the plans is an annual occurrence. The plans come to this office via the Division of Emergency Government.

EMT Educational Centers
State of Florida

The following institutions offer the basic 81-hour EMT course, which qualifies the student to sit for the State EMT Registry exam. Successful completion of the State EMT Registry exam is required for a person to work on an ambulance as an Emergency Medical Technician.

1. Brevard Community College
   1519 Clearlake Road
   Cocoa, Florida 32922
2. Broward Community College
   S. W. Davie Road
   Ft. Lauderdale, Florida 33314
3. Central Florida Community College
   P. O. Box 1388
   Ocala, Florida 32670
4. Chipola Community College
   Marianna, Florida 32450
5. Daytona Beach Community College
   P. O. Box 111
   Daytona Beach, Florida 32015
6. Edison Community College
   College Parkway
   Ft. Myers, Florida 33901
7. Florida Junior College at Jacksonville
   4501 Caper Road
   Jacksonville, Florida 32218
8. Florida Keys Community College
   Stock Island
   Key West, Florida 33040
9. Gulf Coast Community College
   Highway 98
   Panama City, Florida 32401
10. Hillsborough Community College
    P. O. Box 22127
    Tampa, Florida 33622
11. Indian River Community College
    3209 Virginia Avenue
    Ft. Pierce, Florida 33450
12. Lake City Community College
    Lake City, Florida 32055
13. Miami-Dade Community College
    11380 N.W. 27th Avenue
    Miami, Florida 33167
14. North Florida Junior College
    P. O. Box 419
    Madison, Florida 32340
15. Okaloosa-Walton Junior College
    Niceville, Florida 32578
16. Pasco-Hernando Community College
    211 North 7th Street
    Dade City, Florida 33525
17. Pensacola Junior College
    1000 College Boulevard
    Pensacola, Florida 32504
18. Polk Community College
    999 Avenue H., N. E.
    Winter Haven, Florida 33880
19. Santa Fe Community College
    P. O. Box 1530
    Gainesville, Florida 32601
20. South Florida Junior College
    P. O. Box 1057
    Avon Park, Florida 33825
21. St. Johns River Junior College
    5001 St. Johns Avenue
    Palatka, Florida 32077
22. St. Petersburg Junior College
    P. O. Box 13489
    St. Petersburg, Florida 33731
23. Tallahassee Community College
    444 Appleyard Drive
    Tallahassee, Florida 32304
24. Valencia Community College
    P. O. Box 3028
    Orlando, Florida 32802
25. Bradford-Union Vocational/Technical Center
    609 North Orange Street
    Starke, Florida 32091
26. Lake County Area Vocational/Technical Center
    2001 Kurt Street
    Eustis, Florida 32726
27. Manatee Area Vocational/Technical Center
    5603 - 34th Street, West
    Bradenton, Florida 33507
28. St. Augustine Technical Center
    Del Monte & Collins Avenue
    St. Augustine, Florida 32084
29. Sarasota Vocational/Technical Center
    4748 Beneva Road
    Sarasota, Florida 33581
30. Suwannee-Hamilton Vocational/Technical Center
    Live Oak, Florida 32060
31. Taylor County Area Vocational/Technical Center
    Highway 19 & 98
    Perry, Florida 32347
32. Palm Beach County School Board
    3323 Belvedere Road
    West Palm Beach, Florida 33401
33. McDill AFB Hospital
    McDill Air Force Base
    Tampa, Florida 33608
34. Department of the Air Force
    USAF Regional Hospital Eglin (AFSC)
    Eglin Air Force Base, Florida 32542
35. Naval Air Regional Medical Center
    P. O. Box 11747
    Pensacola, Florida 32512

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FLORIDA HEALTH NOTES wa
promulgated at an annual averag
cost of $38,064, or 15.8¢ per copy
to provide health education for th
people of Florida.

Division of Health

Post Office Box 210 Jacksonville, Florida 32201

LORIDA HEALTH NOTES

OCTOBER 1975
VOL. 67, NO. 8

HRS Reorganization

Improving Delivery of Better Health Services

COVER—This distinctive marker indicates the entrance to the office complex in Tallahassee which as of October 1, 1975 became official headquarters for directors of various programs of the Department of Health and Rehabilitative Services, State of Florida. The grounds emphasize the park-like appearance with trails for walking, laid out well away from automobile traffic, and the natural growth of native trees and shrubs. One of the beautiful places is the lake and fountain shown on the back cover.

Florida Health Notes is published monthly at an annual cost of $38,064 or 15.8 cents per copy in accord with Section 257.05, Florida Statutes, by the Health Program Office at Jacksonville, Department of Health and Rehabilitative Services, State of Florida, Albert V. Hardy, M.D., DR.P.H., Editor.

Second class postage paid at Jacksonville, Florida; Form 3579 should be sent to P. O. Box 210, Jacksonville 32201.

International Standard Serial Number US-ISSN-0015-4105.

Florida Health Notes has been published since 1892.

Florida Health Notes

October 1975
Volume 67
Number 8

Message from the Secretary

Mr. Page

Dedication of this issue of Florida Health Notes to reorganization of the Department of Health and Rehabilitative Services is timely and important. I believe the Florida legislature has done a truly remarkable thing in structuring this Department along district lines so health services can be delivered in concert with social services to meet individual demands. I am dedicated to making Florida's delivery system truly responsive to client needs. This effort will have significance for Floridians and for citizens of this nation.

I also am aware of the pitfall of HRS and its employees becoming so engrossed in reorganization that its purpose might become lost in the process.

Physical, mental and social components of health must be coordinately programmed so that protection of the public's health and its promotion become paramount in the delivery system. Improved delivery of both health and social services depends upon their accessibility to persons in need.

Recognition of this fact by Florida Health Notes is significant. Expansion of this publication's efforts to all health components of the Department will be a definite aid to the Department. I congratulate the editors of the publication for recognizing this fact.

The challenging and difficult tasks ahead can best be appreciated as opportunities to serve. As is suggested, I hope the changes which commenced October 1 will be recognized as one of the major milestones in improving the delivery of better health services in this state.

I am confident Florida Health Notes will be an important factor in the success of HRS' efforts.

WILLIAM J. PAGE JR., SECRETARY
DEPARTMENT OF HEALTH
AND REHABILITATIVE SERVICES
TALLAHASSEE

Florida Health Notes Traditionally a Service

Dr. Prather

The publication of Florida Health Notes is a tradition of many years standing. It was initially distributed in 1892, three years after establishment of the Florida State Board of Health, and discontinued after four years due to lack of assistance in its preparation. The publication was renewed in 1906 and has been continued without a significant break since that time. Dr. J. Y. Porter, the first health officer, was a talented writer and during his tenure Health Notes was issued to keep the public informed of multiple newsworthy activities and pressing problems.

The nature of the publication continued with little modification until the arrival of Dr. Wilson T. Sowder. Under his direction Florida Health Notes was developed into an important medium for the education of the public and the staff on major health concerns. Each issue presented a relatively comprehensive consideration of one subject. The publication was used widely and with this in mind the presentations were written in easily understood language. Increasingly its content was drawn together by one person with consultation and review for technical accuracy.

The continued publication of an improved Florida Health Notes appears clearly indicated. This will be another area in which the effort will be toward improving the delivery of better health services. To this end I have designated an Editorial Committee with Albert V. Hardy, M.D., Dr. P.H., as chairman and editor of Health Notes.

To further assure the desired high quality of this publication, the Health Program Office will have the assistance of persons well

qualified in the provision of public information under the direction of Rex Newman of Tallahassee, Director of Public Information for the Department of Health and Rehabilitative Services.

We anticipate that these modifications will be another milestone for Florida Health Notes.

E. Charlton Prather, M.D., Director
Health Program Office
Department of Health
and Rehabilitative Services
Tallahassee

Improving Delivery of Better Health Services

ALBERT V. HARDY, M.D., DR.P.H.
JACKSONVILLE

Milestones in Health Legislation

October 1, 1975 is one of five major milestones along the way of 100 years of legislative action on the delivery of health services in Florida.

The first milestone was reached in 1889 after 15 years of discouraging effort to obtain favorable action upon proposed health legislation by Dr. John P. Wall, Tampa physician and legislator. During these pioneering years in Florida few legislators saw any need for a state health organization.

The legislature had first considered establishing a State Board of Health in 1873, but in this and several subsequent sessions the possibility was rejected. In 1888, however, the need became tragically apparent — a disastrous yellow fever epidemic occurred in Jacksonville.

There was acute need for medical and nursing care and a massive problem of relief. A temporary health organization evolved. It was agreed that all medical and relief measures should be coordinated within one governmental agency. Dr. J. Y. Porter, who later became the first State Health Officer, had responsibility for organizing care of the sick, applying the preventive measures of that time, and for the receipt, custody and distribution of funds, food and clothing. In this early health and welfare organization, problems were increased by large numbers of people seeking aid due to rumors of free rations and easy money. Thus, long ago the delivery of health and social services was combined and problems not unlike those of today were encountered.

Under the influence of these circumstances, a special session of the Florida legislature was called and in early 1889 the lawmakers authorized the establishment of a State Board of Health. Understandably, the highest priority (if not the sole purpose

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Dr. Hardy is Editor of Florida Health Notes.

DR. JOHN P. WALL

1836 - 1895

FOUNDER OF THE FLORIDA STATE BOARD OF HEALTH

WALL WAS BORN NEAR JASPER FLA. WHILE THE FAMILY WAS UNDER SIEGE BY INDIANS IN 1836.

DR. WALL GRADUATED FROM THE MEDICAL COLLEGE OF SOUTH CAROLINA IN 1858 AND SERVED AS A CONFEDERATE SURGEON. HE WAS THE FIRST AMERICAN TO VOICE HIS BELIEF THAT YELLOW FEVER WAS CARRIED BY THE **MOSQUITO.**

DR. WALL HAD A PRACTICE IN TAMPA AND WAS ITS MAYOR 1878 TO 1880, AS WELL AS ITS HEALTH OFFICER AND EDITOR OF THE SUNLAND TRIBUNE. AS A STATE REPRESENTATIVE HE CRUSADED FOR A STATE BOARD OF HEALTH FOR **15 YEARS**, AND IS RECOGNIZED AS ITS FOUNDER IN **1889.**

BY JAMES ROBE FRMP

THIS INFORMATION COMPILED BY JAMES M. INGRAM, M.D., TAMPA, FLORIDA

Reprinted from the Journal of the Florida Medical Association, August 1975.

visualized) was prevention and control of communicable diseases. This responsibility was urgent but the area of activity was narrow. In the next 75 years efforts to control communicable diseases were so successful that the major task of public health appeared to have been accomplished.

The second milestone was reached in 1931 with authorization of an effective county health department structure.

Soon after establishment of the State Board of Health, the legislature approved county boards of health, but it quickly became apparent that these local departments, acting independently on local quarantines, were not effective. They were abolished by legislative action.

A quarter century later there was wide concern elsewhere with development of county health units. By 1930 there were over 500 such units in the nation, chiefly in the southern states, but none in Florida.

The organization and functioning of these units in other states were studied in the early 1920s by the late Dr. George Dame, a long-term employee of the State Board of Health. His recommendations received legislative consideration in 1931. Guided by both favorable and unfavorable experience in other states, the legislature authorized a public health organization which has proved to be very satisfactory. Broad cooperation, joint funding and mutual responsibility by the counties and by the state have been its strength.

Although this divided authority might appear administratively unsound, in practice it worked very well. Florida's public health organization under this plan became recognized as one of the strongest in the nation. This legislative plan has been adopted as a part of the continuing organization of health services, with authority vested in the Secretary of the Department of Health and Rehabilitative Services.

The third milestone had its origin in the depression of the early 1930s. This brought unprecedented unemployment not alone among laborers but also among nurses, engineers, and even physicians. A vast number of people without financial resources needed the services of such professionals. As a relief measure, federal programs were evolved to use them to provide needed services.

Thus suddenly in 1934, funds became available for a nursing program "such as the State had not dreamed of." And engineers were employed to supervise large numbers of workers in com-

munity sanitation and mosquito control. Through federal legislation much of this emergency program became a part of ongoing public health activity. Beginning on March 1, 1936, Social Security funds were made available for the support of health services in states.

This milestone truly marked the beginning of a new era in health and social services. Initially, and in following years, emphasis in the use of federal funds for health was on the development and strengthening of county health units. Aided through Social Security, within ten years local health departments were able to serve 80 per cent of Florida's population. Progress continued until all counties had organized health units. These were gigantic strides in improving the delivery of better health services in Florida, but in recent years it seemed apparent to legislators that services to needy people could and should be improved.

The last two milestones resulted from a continuing concern on the part of legislators with the delivery of health and social services. The first of these recent legislative actions was in 1969.

There was a conviction that better services to the needy could be provided if the efforts of multiple government agencies giving these services were consolidated. Thus the several separate Divisions providing health and social services were organized into one very large state agency, Department of Health and Rehabilitative Services (HRS). The purpose was clear but the results were not satisfying. It appeared to legislators (as to unbiased observers) that the Divisions wished and sought to continue their independent operation. Cooperation was fostered but consolidation of services was resisted.

Thus with continued study and debate, reorganization of HRS was considered by the 1975 legislature. Widely diverging views were aired and differing procedures evaluated. Eventually, through compromise, a legislative proposal was evolved which was adopted by virtually unanimous votes in the Senate and House of Representatives. This reorganization is being activated as of October 1, 1975 with major changes in the delivery of health and social services.

Most of this law specifies in detail the structure of a reorganized HRS. Services are to be administered at a district level rather than on a statewide basis. To better assure consolidation, all previously reorganized Divisions are abolished. The responsibility for actually providing services is separated from planning

and technical guidance. A new emphasis is given to evaluation of the quality and costs of services. Hopefully this legislative act will prove to be the beginning of an era of concerted and effective effort for improving the delivery of better health services. The immediate need is to understand the purpose and goals of this reorganization so all may contribute effectively to their attainment.

Purposes of HRS Reorganization

Because of its importance the purposes of reorganization of HRS are reproduced in this issue of Health Notes exactly as stated in the Statutes. The purposes should be known so the people will understand what may be expected and HRS staff members will appreciate what must be done. Illustrations of need and some discussion of these purposes are included here. The numbers and letters used for the headings are those in the reorganization legislation.

(1) PURPOSE.—The purpose of the reorganization of the Department of Health and Rehabilitative Services is to integrate the delivery of all health, social, and rehabilitative services offered by the state to those citizens in need of assistance, herein referred to as "clients." The purpose of the department is to:

Here the focus is on citizens in need of assistance. Many of the poor are uninformed as to where their needs can be given attention. With differing sources of service, an individual may find he must visit offices in differing locations. Without private or accessible public transportation the needed services may be out of reach. Further, the individual or family with multiple needs may not have adequate time to obtain the attention desired even though fully familiar with the locations of the differing offices. Integration of services will make these more readily accessible.

With closer association there will be broader understanding by employees who thereby should find ways for more effective cooperation. This will be particularly beneficial for services provided during home visits. With integration of services, counselling on differing problems may be provided by a well-informed staff member without fear of criticism for meddling with another employee's responsibilities. Of further importance, special needs may be detected and appropriately reported.

Although in this statement of purpose attention is directed to "clients," any impression that services will be limited to the poor and disabled is dispelled by later statements. Specific benefits

Be It Enacted by the Legislature of the State of Florida: . . . .

Section 2. Section 20.19, Florida Statutes, 1974 Supplement, is amended to read:

20.19 Department of Health and Rehabilitative Services.—There is created a Department of Health and Rehabilitative Services.

(1) PURPOSE.—The purpose of the reorganization of the Department of Health and Rehabilitative Services is to integrate the delivery of all health, social, and rehabilitative services offered by the state to those citizens in need of assistance, herein referred to as "clients." The purpose of the department is to:

(a) Provide such assistance as is authorized to all eligible clients in order that they might achieve or maintain economic self-support and self-sufficiency to prevent, reduce, or eliminate dependency.

(b) Prevent or remedy the neglect, abuse, or exploitation of children and of adults unable to protect their own interests.

(c) Aid in the preservation, rehabilitation, and reuniting of families.

(d) Prevent or reduce inappropriate institutional care by providing for community-based care, home-based care, or other forms of less intensive care.

(e) Secure referral or admission for institutional care when other forms of care are not appropriate, or to provide services to individuals in institutions when necessary.

(f) Prevent the occurrence and spread of communicable diseases and other physical and mental diseases and disabilities to the maximum degree possible.

(g) Promote the maintenance and improvement of health and mental health.

(h) Disseminate health information to the public with recommendations for self-help aimed at the prevention of disease and the maintenance and improvement of the health of all residents and visitors in Florida.

(i) Plan and develop health resources to assure effective and efficient delivery of high quality health services fully accessible to all citizens.

From: West's Florida Session Law Service, 1975 Laws, Fourth Legislature, First Regular Session, page 92.

are for all residents and visitors in Florida. There is a call for "high quality health services fully available to all citizens." The wide range of responsibility is further emphasized by the statement that employees of county health departments "shall engage in the prevention of disease and the promotion of health in cooperation with and under the supervision of the Department."

(a) Provide such assistance as is authorized to all eligible clients in order that they might achieve or maintain economic self-support and self-sufficiency to prevent, reduce, or eliminate dependency.

There are multiple causes of dependency; one is loss of health. Breadwinners who lose their jobs due to tuberculosis, "heart attack," mental illness, or alcoholism are likely to have dependent families. Many causes of dependency are preventable. The costs of care substantially exceed the costs of effective services to prevent the causes of dependency. It is estimated, for example, that the total cost of the birth of an illegitimate baby to a teenage school drop-out averages $100,000 in public funds for aid to the mother and the dependent child. In contrast, education, counselling and other preventive services to those at high risk could be provided at a very much lower cost and that approach would provide substantial social benefits also.

(b) Prevent or remedy the neglect, abuse, or exploitation of children and of adults unable to protect their own interests.

Here the major needs include but extend far beyond the provision of health services. With increasing age, medical and health problems increase in frequency and severity. There is relatively little medical enthusiasm for caring for aged patients with irreversible disabilities. Organized health services rarely include programs specifically directed to the medical needs of the aged. The older person at home or in an institution is left to a lonely existence. One purpose of the new Department of Health and Rehabilitative Services is to prevent this neglect.

Child abuse is a particularly dark social illness but over 25,000 cases annually are being reported in Florida. Many of the children are so injured that they are brought to the attention of physicians and law enforcement officials. Preventive counselling is practicable provided the hazard is sensed early. Those concerned with this problem have indicated that public health nurses have particularly favorable opportunities to become aware of risks in the families they serve and can initiate preventive procedures. If

it is to attain its stated purpose, reorganized HRS must give effective attention to these new and difficult tasks.

(c) Aid in the preservation, rehabilitation, and reuniting of families.

Enhancing the integrity of the American family is a worthy purpose which will be difficult to attain. Primarily the purpose of the family unit is to provide favorable conditions for infants and children as well as mutual satisfaction for the parents. Yet in 1973 a total of 17.7 per cent of Florida's infants were born out of wedlock. In some social groups, half the infants were born without benefit of an intact family. The problem is particularly serious when the infant is born to a teenage "child." In 1974 there were 110,404 live births in Florida and 20,085 were illegitimate. There were 9,268 illegitimate births to girls under 19 years, including 815 to girls under 15 years of age.

Data on marriages and divorces indicate further the "sickness" in family life. In the latest year for which data are available there were 89,587 marriages and 55,840 divorces in Florida. To this last figure for marriage failures must be added the very substantial number of families broken by desertion or completely disrupted by incompatibility or other conditions.

Another hazard to family life is the unplanned pregnancy and unwanted child. Of Florida women in need of subsidized family planning services only 54.2 per cent received this attention in 1974.

Thus, there are imposing problems in attaining the objective of aiding in the preservation, rehabilitation and reuniting of families.

(d) Prevent or reduce inappropriate institutional care by providing for community-based care, home-based care, or other forms of less intensive care.

This is an essential service to prevent inappropriate institutional care. The major problem involves the declining aged individual. Those with predominantly physical disabilities are more often than desirable confined in nursing homes. In homes operated for profit, the individual too often is provided minimal care while awaiting death. Persons with predominantly mental deterioration commonly have been committed to mental hospitals for their remaining years. In both these situations, a favorable option is home-based care. The ideal of loving care by the individual's own family is not often attainable in this era of small urban apartments and working homemakers. Foster homes to be desirable must be care-

fully selected and the care provided the individual adequately supervised. This requires an organized program which has been initiated in the Division of Health but will require expansion to attain the goal specified for reorganized HRS.

(e) Secure referral or admission for institutional care when other forms of care are not appropriate, or to provide services to individuals in institutions when necessary.

Even with a fully adequate program for home-based care, there will be situations where institutional care is essential. The purpose should be to assure that institutional care will be provided only when care outside institutions is not appropriate.

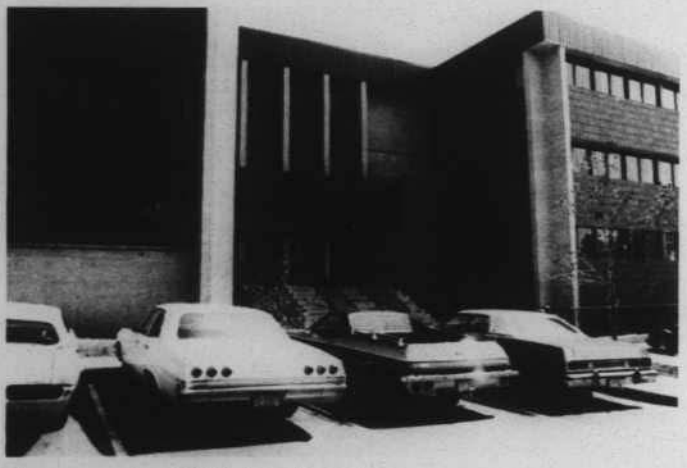
(f) Prevent the occurrence and spread of communicable diseases and other physical and mental diseases and disabilities to the maximum degree possible.

Despite commendable progress in prevention of communicable diseases, there continue to be unsolved problems. Even with vigorous preventive measures, the venereal diseases appear out of control. In the first half of 1975 infectious syphilis cases in Florida increased from 1,308 to 1,690, a 29 per cent rise as compared with 1974. For gonorrhea 33,064 cases were reported, an increase of 12 per cent over 1974. In some counties the number of cases and percentage increase indicate a serious epidemic condition.

Newly identified cases of tuberculosis in Florida in 1964 numbered 1,407 — in 1974 with increased population 1,460. Among nonwhite persons there were 79 deaths in 1964 and 94 in 1973. While this disease no longer requires prolonged care in special hospitals, past experience indicates the need for more intensive attention to prevent its occurrence to the maximum degree possible.

Important as are these communicable diseases the urgent task of the future is prevention of chronic noninfectious diseases. In recent decades the United States has seen a progressive rise in deaths from heart diseases but, through research, the conditions which increase risks of a "heart attack" have been clearly identified. These risks can be reduced or prevented though this demands significant modifications in lifestyle. In the years ahead the public must become fully aware of cardiovascular risk factor reversal. Not overlooking the importance of cancer control, this appropriately may be a high priority activity in reorganized HRS.

More baffling, at least to those who have been concerned with



Entrance to HRS headquarters at 1323 Winewood Boulevard in Tallahassee. This building is one of several in the office park located southeast of the city off the Apalachee Parkway, U.S. 27 South.

physical disorders, is prevention of mental diseases, but it is a specified purpose for reorganized HRS to attain this goal to the maximum degree possible.

(g) Promote the maintenance and improvement of health and mental health.

It is recognized that effective disease prevention may not be an ultimate purpose; beyond this there is the need to move toward robust health. While this has been a long-time goal of health services, actual attainment has been less than impressive. It is a high purpose which will call for development and application of better health services.

(h) Disseminate health information to the public with recommendations for self-help aimed at the prevention of disease and the maintenance and improvement of the health of all residents and visitors in Florida.

This is another area in which accomplishments have failed adequately to meet needs. Consider smoking as an example. Concerning this problem the Surgeon General of the U.S. Public Health

Service stated that "cigarette smoking is the greatest preventable cause of illness, disability and premature death in this country." Other authorities give similar emphasis to the importance of the problem. This habit is the major cause of cancer deaths and a major factor in coronary heart disease. Progress in control of this health hazard depends upon health education which effectively modifies behavior.

Major health problems in the past could be controlled by doing things for people. Yellow fever and malaria were eradicated through control of particular species of mosquitoes. Typhoid fever was largely eradicated through attention to sewage disposal and water purification. Diarrheal diseases of infants declined rapidly with an effective sanitary control of milk supplies. Even immunizations involve only obtaining medical service a limited number of times. But the major unsolved health problems require modifications of behavior which must be maintained perhaps for a lifetime. Knowledge of facts is not adequate, important as this may be. Effective motivation for change and for maintenance of health habits is essential. It is the purpose of the new HRS to provide this effective type of health education for all residents and visitors in Florida. The needs are apparent but it will be difficult to evolve and apply the indicated solutions.

(i) Plan and develop health resources to assure effective and efficient delivery of high quality health services fully accessible to all citizens.

The final stated purpose summarizes overall needs. For its attainment there must be adequate planning with available resources "to assure effective and efficient delivery of high quality health services fully accessible to all citizens."

Other Purposes

The compelling purpose of HRS reorganization is serving the needs of the "client." Becoming aware of these needs the legislature by its action prescribed a massive reorganization of the Department as essential to better service for needy individuals. The identification of needs and planning to better meet these needs is a continuing responsibility at the top administrative level. The 11 districts have major responsibility for implementing recommended solutions. Actual benefits of the prescribed changes can become apparent only after a period of operation. This must have been in the minds of legislators who placed responsibility for program evaluation at the highest level of the organization. This indicates a requirement

to consider objectively the weaknesses as well as the benefits of legislated reorganization. The goal of improving delivery of better health services will require continuing identification of need, new program implementation, and periodic evaluation of advances toward achievement of this goal.

The purposes of the individual program offices are stated separately. That specified for the Health Program Office is: "The responsibility for this office encompasses all health programs operated by the Department including county health departments, including the review and coordination of Departmental health services, as well as the assurance of an accepted level of quality."

Cooperative actions are clearly indicated particularly with the Mental Health Program Office which has responsibility for this most important component of total health activities.

Priorities

In the legislation reorganizing the Department of Health and Rehabilitative Services there is no indication as to priorities. Attention is directed particularly to "clients," to those in need of assistance. These are the sick, disabled, dependent and the retarded, delinquent and neglected aged. Providing aid would be a never-ending task. Hence, in the statement of purpose is the repeated directive to prevent: dependency; neglect, abuse or exploitation; dissolution of the family; inappropriate institutional care, and physical and mental diseases to the maximum degree possible.

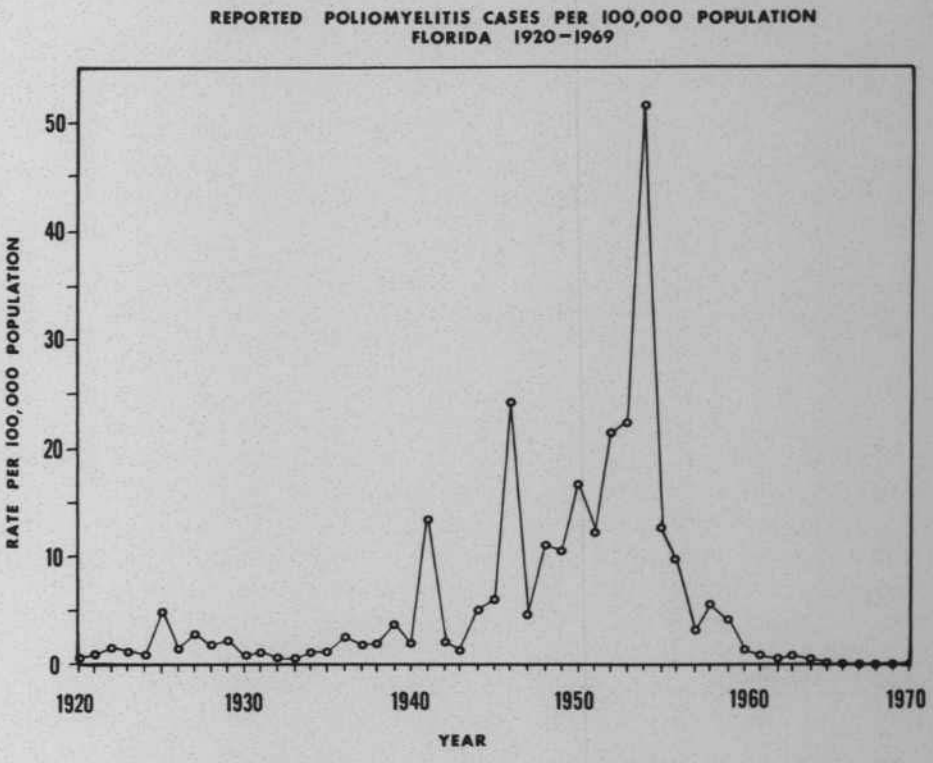
The history of poliomyelitis provides a contrast to the approach to clients in need as compared to prevention. Within the span of a lifetime poliomyelitis made its appearance, became the most dreaded epidemic infection and was virtually eradicated. No appeal from a voluntary health organization had wider response than the National Foundation. Patients in iron lungs, in wheel chairs, with crutches, many permanently disabled, were a constant reminder of need, but a preventive approach became possible. When the safety and efficacy of the oral vaccine became established the disease was virtually eradicated within one year by a massive preventive program. No longer are there patients needing treatment and rehabilitation due to poliomyelitis.

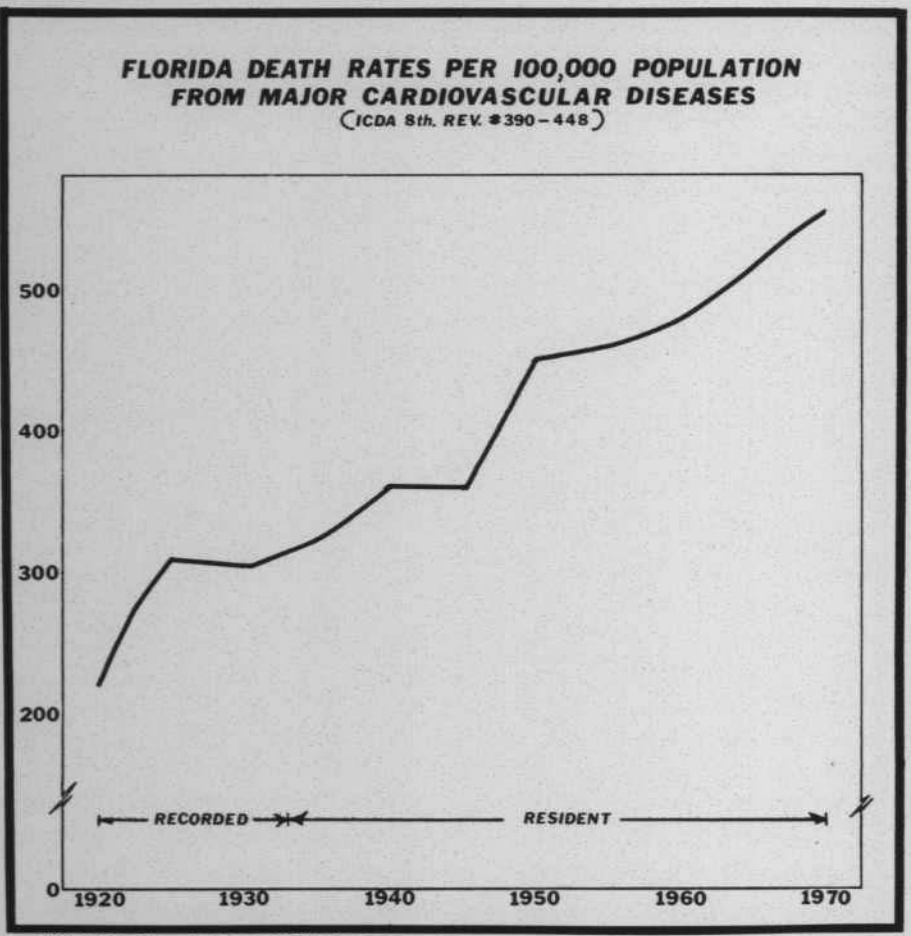
It is acknowledged and widely emphasized that the promising approach to "heart attacks" is prevention. There is a dark outlook for those with lung cancer, but an effective means of prevention is known even for those who continue their exposure to risk. The

lifelong disability of infants born to mothers who had German measles early in their pregnancy is a sad condition, now subject to prevention.

Aid to those in need warrants high priority. Prevention of the causes of need clearly justifies a higher priority.

In planning for implementation of reorganization there is concern with district administration and bringing services geographically closer to recipients. Significant as this may be, making services available at a time convenient to the patient may warrant more attention. Making services acceptable could be of still greater importance. Physicians assistants have been warmly accepted in communities served by them. They live among the people and readily relate to the people. Community health workers have been found an effective bridge between those served and the socially-distant professional team which offers expert services. Thus, making aid personally attractive at a convenient time justifies a higher priority than the geographic locations of service centers.





NOTE: 5yr. Intervals, 1920–1970. Each Interval Rate is a 3yr. Average.

Clients in need are a small proportion of the population from which they are drawn. Preventive action demands a consideration of the population from which, without preventive action, the clients will be drawn. The need for modifications in the population as a whole must have the high priority it deserves. Otherwise where is their hope of avoiding disabilities, illnesses and death due to cigarette smoking, abuse of alcohol, defective nutrition, excess stresses or ignorance and economic inequities.

Lastly, incentive which motivates provision of services is a high priority consideration. In American life, financial rewards are a dominant motivating influence but in health the principal purpose

should be and commonly is to find better ways to deliver the services to people.

Thus, in the philosophy of those concerned with health, priorities are: first prevention, care when prevention fails; making services accessible, convenient and attractive; involving the population as a whole in health maintenance and disability prevention, and making the provision of better service to our people our highest motivating influence.

Action and Progress Elsewhere

Florida is in company with 15 other states in having consolidated programs to provide services to needy individuals. These organizations, newly authorized by the various legislatures, are designated as Departments of "Human Resources," "Health and Human Resources," "Health and Social Services," "Health and Welfare," or in the case of Florida "Health and Rehabilitative Services." All these organizations are relatively new developments and their effectiveness will become clearly apparent only after a period of years.

Hence, so this approach may be fairly evaluated in Florida, the best efforts of all must be given to assuring the success of reorganization while its benefits and problems are objectively assessed. With this open-minded effort, much benefit may be anticipated from reorganization of Florida's Department of Health and Rehabilitative Services.

Typhoid Fever
Report of Recent Investigation

Typhoid fever is so rare that any cluster of cases is an epidemic. Five cases in Jacksonville, therefore, with onsets from May 8 to May 17 received intensive epidemiological attention. Four cases involved children, one an adult. There were no common contacts in the families concerned, nor in school, church, club or social activities. There was no common source of meals, groceries or milk, no link through water or sanitary facilities.

The information that one of the boys who became ill played on a Little League baseball team at first appeared of no significant interest; however, further inquiries revealed that each of the other three children had brothers who also played in the same league and at the same ball park. Interest increased when it was discovered that the four children who became ill had been at the ball park on a particular night two to three weeks prior to onset — a time corresponding to the usual incubation period for typhoid fever.

There was no personal contact at the ball park but all bought snacks at the same stand staffed by volunteers. The four of them had "Sno Cones" and the ice had been purchased at a local plant. The volunteers and plant employees were identified and blood specimens were obtained for serologic testing and stool samples for culture.

Food handling procedures and the ice manufacturing process were investigated. The sanitary defects found had necessary corrections undertaken. The finding of greatest interest among some 1,500 laboratory examinations pertained to a worker in the ice plant. The serologic test indicated that he could be a typhoid carrier and the stool culture established that he was.

The particular type of typhoid organism from each of the five patients and the identified carrier was a variety rarely found in this country. The single prior isolation in Florida was from an infection apparently contracted in Egypt. Inquiry revealed that the identified carrier frequently socialized with sailors from foreign vessels which docked in Jacksonville. This may have been the source of his infection. Once identified he was treated to avoid the risk of any further spread.

Circumstances leading to infection of the adult at about the same time as the four children and with the same unusual variety of typhoid organism could not be determined.

Department of Health and Rehabilitative Services
Health Program Office
Post Office Box 210, Jacksonville, Florida 32201

FLORIDA HEALTH NOTES

NOVEMBE
VOL. 67,

Loss of Control — Alcoholism
Sources of Aid
State Policy on Alcoholism
One Day at a Time

Cover Illustrations

The peace officer may take a public inebriate to the treatment center or hold him in protective custody for up to 12 hours. If the individual is held, the person in charge of the jail is required to notify the nearest treatment resource within the first eight hours. The treatment center may detain the beverage alcohol abuser for 96 hours or until the condition for which he was brought in no longer exists, whichever comes first. He must be examined by a physician as soon as possible and his next of kin notified, unless he requests that this not be done. The treatment center may use appropriate persuasion or initiate court action to keep the individual for a longer period if this action is indicated. Taking into protective custody "shall not be considered an arrest for any purpose, and no entry or other record shall be made to indicate that he has been arrested or has been charged with a crime." (Chapter 396.072-7)

Florida Health Notes is published monthly at an annual cost of $38,064 or 15.8 cents per copy in accord with Section 257.05, Florida Statutes, by the Health Program Office at Jacksonville, Department of Health and Rehabilitative Services, State of Florida, Albert V. Hardy, M.D., DR.P.H., Editor.

Second class postage paid at Jacksonville, Florida; Form 3579 should be sent to P. O. Box 210, Jacksonville 32201.

International Standard Serial Number US-ISSN-0015-4105.

Florida Health Notes has been published since 1892.

Florida
Health
Notes

November 1975
Volume 67
Number 9

Loss of Control Alcoholism

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Tallahassee

An engineer skilled in electronics was fired from his job; he was seldom sober. He injured his wife during one of his violent spells; subsequently he lost his home.

Jane invited Sarah to her home after school one afternoon. She found her mother on the floor, dead drunk.

He was a leader in his church but another drinking spree was inevitable. This had been going on for a long time and for the children's sake his wife concluded that a divorce was the only solution.

Jim had one drink too many during the social hour at his company's annual convention. He had to be carried to his room and put to bed.

Counterparts of these incidents are rather commonplace. Public health nurses, social workers and others whose duties include working in the home environment frequently encounter families which are being disrupted by the excessive consumption of alcoholic beverages.

Dr. Alford is Administrator of the Alcoholism Unit, Mental Health Program Office, Department of Health and Rehabilitative Services, State of Florida.

Joint Responsibility

Attitudes concerning the consumption of alcohol differ; problem drinkers may be regarded as persons who have become seriously ill. Often they are considered morally weak — persons who brought the problem on themselves, do not want help and will not respond when help is offered. Whatever the attitude, health and social workers acknowledge that alcoholism is a complex problem calling for joint attention by multiple community agencies.

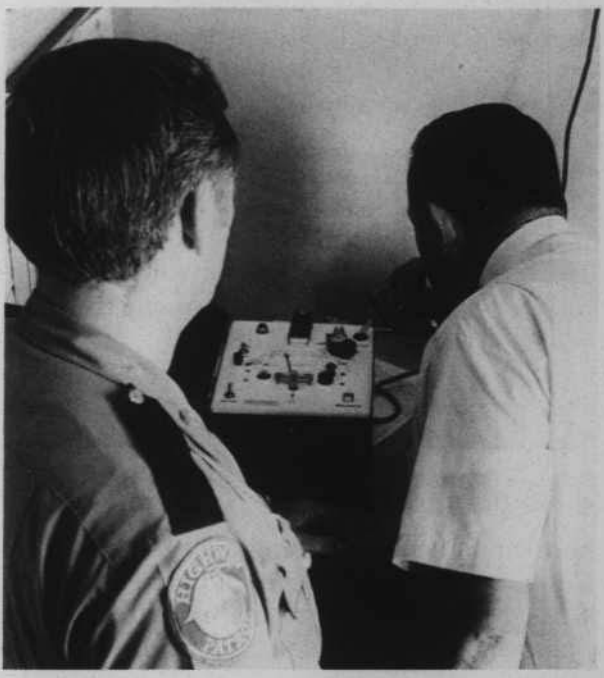
In this country for generations the use and control of alcoholic beverages have been controversial subjects. The prohibition issue divided the country. Today in most groups there will be those with differing strong emotional reactions to this subject. The health problems which have resulted from excessive drinking are exceeded in importance only by the cardiovascular diseases, mental illness, and carcinoma and are of such magnitude that they cannot be adequately handled by any one agency.

What Alcohol Does to People

The alcohol used in beverages, ethyl alcohol, is classified with the narcotics, in the same family as ether and chloroform. It acts as a depressant upon the central nervous system. By depressing usual inhibitions and restraints it gives the individual an illusion of stimulation. Alcohol slows reaction time and impairs muscular skills, both highly important in driving. The drinking of alcoholic beverages by drivers and pedestrians leads to some 25,000 deaths and at least 800,000 crashes in the United States each year. Almost half (45%) the drivers involved in fatal accidents have been found with blood alcohol levels consistent with six to nine drinks.

Alcohol is absorbed into the blood and distributed throughout the body. In the lungs a proportion transfers from the blood to the air. Measurement of the amount in the expired breath provides a reliable indication of the amount in the bloodstream. This determination is accepted in Florida and other states as a test of legal intoxication.

Alcohol is absorbed from the gastrointestinal tract. In the liver it is broken into simpler chemical components, some harmful to tissues. With heavy usage of alcohol the liver cells are irreparably injured. The end result may be death from cirrhosis of the liver, the sixth most important cause of death in Florida.



THE AMOUNT OF ALCOHOL IN THE EXPIRED BREATH PROVIDES A RELIABLE INDICATION OF THE AMOUNT IN THE BLOODSTREAM. THIS MEASUREMENT IS ACCEPTED IN THE DETERMINATION OF LEGAL INTOXICATION.

Alcohol is one of the addictive drugs. With repeated excessive intake, usually over several years, the body develops a dependence. At this stage the individual loses control over his drinking. In recent years the courts have ruled that an alcoholic should not be punished as a criminal since his acts are the involuntary manifestations of the disease alcoholism.

Six stages with differing effects have been described in alcohol usage. 1. The occasional social drinker. No problem. 2. The regular social drinker. Some are heading for trouble. 3. The alcohol-dependent person. Alcohol is used regularly as a part of recreational activities, during business luncheons, after work, at dinner and/or at other times. Intoxication is rare. 4. The addictive drinker. A psychological habit has been established. Some degree of control is retained over when and how much alcohol is used; addictive drinkers increasingly drink to excess. Without effective intervention, many become alcoholics. 5. True alcoholics. There

is physiological as well as psychological dependence. The body needs alcohol to function without distress. The resulting excessive drinking is a problem to the individual, family and society. 6. The degenerated alcoholic. Only a few chronic "drunks" are on "skid row."

About three-fourths of the adult population in the United States apparently endorse the social use of alcohol. Alcohol has been accepted in American culture since the earliest colonial days. Its use would not have persisted unless users found it satisfying. The realistic approach to control of alcohol is to recognize that alcoholic beverages are and probably will continue to be socially acceptable, to seek means of avoiding problem drinking and to approach alcoholism as a problem in the prevention, treatment, and rehabilitation of patients with a serious chronic disease.

The Neglected Disease

In recent years there has been increasing recognition of alcoholism as a chronic disease. The American Public Health Association stated in 1962: "Alcoholism is an illness affecting an estimated five million persons in the United States. In addition to the individuals directly affected, this disease involves indirectly larger segments of the population." An average of four family members are adversely affected by each alcoholic.

One definition of alcoholism is "a condition in which the individual has lost control over his alcohol intake in the sense that he is consistently unable to refrain from drinking or to stop drinking before getting intoxicated." Similarly the American Medical Association describes alcoholism as "an illness characterized by preoccupation with alcohol and loss of control over its consumption..." The important characteristic of the disease is "loss of control."

The causes of alcohol dependence and loss of control are not fully understood. The alcoholic not only has lost control over his drinking but also the ability to regain control. Once the patient has become a pathological drinker rarely will he be able to drink socially. At all times he is one drink away from relapse. Abstinence is the only effective treatment.

A Major Medical Problem

Until recent times drinking and drunkenness were regarded as moral issues. The "drunk" was considered a homeless, skid-row

A DETOXIFICATION AND TREATMENT CENTER IN A METROPOLITAN AREA WHICH HAS BEEN DEVELOPED AS A UNIT SEPARATE FROM A HOSPITAL.

bum. The intoxicated individual was taken to jail and "dried out" in a "drunk tank." Most general hospitals were reluctant to admit him and physicians did not consider him as a desirable patient. Now, however, the laws require that the intoxicated individual be treated as an ill person. Detoxification units are being developed in hospitals and as separate facilities. Counseling is available in the Mental Health Units of most communities. At varying rates in differing communities, resources are becoming available for treatment.

Yet there are vast unmet needs. Emergency care by private practitioners or in emergency sections of general hospitals should be more available. For some patients, admission to a general hospital or to a mental hospital for relatively short-term care is indicated. Diagnosis and treatment are complex; both physical and mental processes are involved. The family also needs some attention. Rehabilitation and follow-up are indicated. But, neither professional services nor facilities are adequate.

Every psychiatrist and social worker in the United States would be required full time to provide all problem drinkers in California with a psychiatric appointment weekly and a social worker visit monthly. In the United States about 4.5% of the adult population or 6 million people have been classified as alcoholics. About five times as many men as women are involved, and rates are higher in cities and in highly industrialized communities. In

those who remain untreated, the life span is shortened by an average of 12 years and the suicide rate is 58 times that of the nondrinking population. Dr. Karl A. Menninger termed alcoholism as "chronic suicide."

Major HRS Problem

HRS services involve responsibility in chronic disease control; thus, programs in heart disease, cancer control and diabetes detection have evolved. Now alcoholism stands among the major diseases which demand attention.

Persons in mental health, public health, welfare, vocational rehabilitation and correction have direct and indirect contact with many problem drinkers who should not be neglected in daily routines. Expanding services to them would be a most significant step toward strengthening care and treatment. Persons in the health and social welfare disciplines can recognize problem drinking and alcoholism where it is occurring; know community resources, refer wisely and cooperate with other agencies; follow-up on recognized alcoholism problems during repeat visits to families; share in informing citizens through informed but informal person-to-person discussions; plan educational programs, and exhibit exemplary public behavior regarding alcoholic beverages.

Because each patient has multiple differing needs, alcoholism control activities should be conducted on a broad community basis. No one agency or profession has the capability to undertake all the social, medical, economic, religious, and legal services necessary. These services must be provided by psychiatrists, internists, family physicians, nurses, social workers, psychologists, psychiatric social workers, lawyers, police, and clergymen. The Department of Health and Rehabilitative Services through the Mental Health Program Office has specific responsibilities for dealing with alcoholism. Services equal to the magnitude of the problem are required in education, preventive counseling and treatment.

Major Labor Problem

In reviewing the "Problem of the Drinking Worker," the U. S. News and World Report states: "The heavy drinker is coming to be recognized increasingly as a major labor problem for American industry — one that costs 15 billion dollars a year. As a result, more companies are starting programs designed to restore the problem drinker to full productivity."

"The idea of these programs is essentially this: Convince the worker that he is ill and persuade him to accept medical treatment, at the risk of being fired for balking.

"Some five million 'Alcoholics' are still on the job. The National Council on Alcoholism figures that each problem drinker costs his employer, on the average, $3,000 a year — in sick pay, accidents, lost production, and especially in the case of executives, bad judgment."

The Bureau of Alcoholic Rehabilitation of the HRS Division of Mental Health estimates that about 10% of the labor force is made up of troubled employees, one-half due to alcoholism. Thus, some 160,000 of Florida's 3,200,000 employed civilians have an alcohol problem which is costing their employers an estimated $300,000,000 each year.

General Control Measures

The reorganized Department of Health and Rehabilitative Services is designed to assure effective coordination and cooperation in solving health and social problems. The alcoholism program assigned to one unit is a continuing concern of the entire Department. There is an obvious need for broader coordination.

Legislation relating to the alcoholism program and to HRS as a whole requires formulation of plans for prevention, care, treatment and rehabilitation. Planning of the alcoholism program is a responsibility of the Alcoholism Unit in the Mental Health Program Office. It is charged also with monitoring professional standards. The responsibility for operation of programs is at the district level. Here, cooperative actions involving multiple official bodies, voluntary agencies and professional disciplines receive attention.

The degree of success in these coordinated actions depends upon the acceptance and understanding of alcoholism as a chronic disease. Alcoholics are not the socially less-desirable persons who disregard the suffering of others due to their own selfish satisfaction. They are persons from all social groups who suffer from a disease over which they have little or no control.

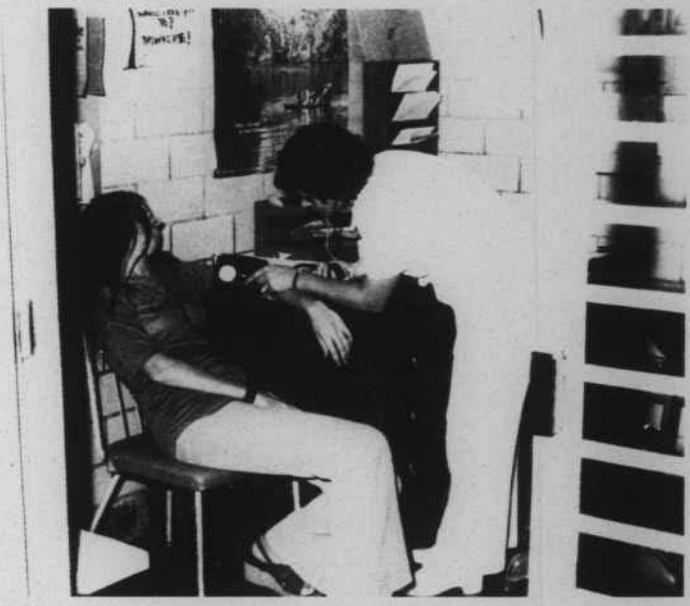
Florida's Legislative Approach

Each year for the past several years more than 100,000 people in Florida have been arrested for public intoxication, and many of them spend one-third or more of their adult life in jail.

The courts are clogged and municipal and county taxes increased due to additional costs of arrests, trials and incarceration of offenders. The tragedy is that the incidence of drunkenness and alcohol-related offenses is not reduced.

Throughout the 1960s there was an accelerating movement toward a new approach to dealing with alcohol abuse and alcoholism. The 1971 session of the Florida legislature passed the "Comprehensive Alcoholism Prevention, Control and Treatment Act" modeled after a "Uniform Alcoholism and Intoxication Act" recommended for enactment in all states. This law (Chapter 396.022) finds that:

> Alcohol abuse and alcoholism are increasing throughout the country and in Florida. Alcohol abuse can seriously impair health and lead to chronic and habitual alcoholism. Alcoholism is recognized as an illness or disease that requires attention and treatment through health and rehabilitative services.
>
> Alcoholism prevention, treatment, and control programs should, whenever possible, be community based; provide a comprehensive range of services, including emergency treatment, under proper medical auspices on a coordinated basis; and be integrated with, and involve, the active participation of a wide range of public and nongovernmental agencies, especially community mental health programs.
>
> Existing laws have not been adequate to prevent alcohol abuse or to provide sufficient education, treatment and rehabilitation services for the alcoholic. Increasing education, treatment, and rehabilitation services and closer coordination of efforts offer the best possibility of reducing alcohol abuse and alcoholism. A major commitment of health and social resources is required to institute an adequate and effective state program for the prevention and treatment of alcohol abuse and alcoholism.
>
> The criminal law is not an appropriate device for preventing or controlling health problems. Dealing with public inebriates as criminals has proved expensive, unproductive, burdensome, and futile. The recognition of this fact and the concurrent establishment of modern public health programs for the medical management of



THE CRISIS CENTER. INDIVIDUALS UNABLE TO PROVIDE A MEDICAL HISTORY ARE CHECKED BY THE NURSING STAFF TO DETERMINE IF THEIR PROBLEM IS ALCOHOLIC OR ANOTHER ILLNESS REQUIRING HOSPITAL CARE.

> alcohol abuse and alcoholism will facilitate early detection and prevention of alcoholism and effective treatment and rehabilitation of alcoholics and early diagnosis and treatment of other concurrent diseases.
>
> Handling alcohol abusers and alcoholics primarily through health and other rehabilitative programs relieves the police, courts, correctional institutions, and other law enforcement agencies of a burden that interferes with their ability to protect citizens, apprehend law violators, and maintain safe and orderly streets.

Based upon these findings, the essence of the law is stated in subsection (8) of the same section: "An alcoholic, except in specified instances enumerated herein, shall be treated as a sick person and provided adequate and appropriate medical, psychiatric, and other humane rehabilitative treatment services for his illness. All public officials in the state shall take cognizance of this legislative policy and this chapter shall be construed in a manner consistent therewith."

Treatment and Rehabilitative Services

While the ultimate objective is prevention, it is recognized that alcoholism as an illness results in first giving attention to treatment and rehabilitative services. In the legislative act concerning alcoholism, the first four functions specified for the Division of Mental Health are concerned with treatment. It shall make arrangements with hospitals or clinics for treatment, care and rehabilitation which will "afford the greatest benefit to the alcoholic;" "provide services through existing mental health centers, clinics and other appropriate treatment resources;" "cooperate with physicians and treatment resources in making arrangements for the treatment and care of indigent alcoholics" and provide education programs for "professional persons or others who care for or may be engaged in the care and treatment of alcoholics."

The pioneering special treatment center for alcoholics maintained at public expense in Florida is a 58-bed inpatient facility in Avon Park which provides an intensive 28-day treatment program. Although able to care for a very small number of those needing specialized attention, this unit continues to give guidance and support to programs now provided in local communities.

Detoxification units are for an entirely different purpose. They provide appropriate short-term care, usually three to five days, for individuals recovering from drunkenness.

The essential feature in any approach to the treatment and rehabilitation of alcoholics is recognition that they are worthy individuals, rather than unworthy drunks. Consideration is given to the wide differences in the nature of the illness varying from minor episodes of alcohol abuse to the severe manifestations of chronic alcoholism. The Bureau of Alcoholic Rehabilitation seeks to assure comprehensive treatment-rehabilitation which is sufficiently flexible to meet the needs of all individuals and conditions.

It should be emphasized that the comprehensive treatment outlined has no special reference to physical facilities and agencies. With the exception of halfway house care, all services could be provided under the same roof.

The key to treatment is the psychosocial evaluation which seeks to determine the specific nature of the individual's problem, assess his strengths and weaknesses, and outline a specific treatment/rehabilitation program for him in light of available resources. Individuals are sent to the mental health clinics through a variety

THE INPATIENT FACILITY AT AVON PARK. IT IS A 58-BED HOSPITAL WHICH PROVIDES AN INTENSIVE 28-DAY TREATMENT PROGRAM.

of entry points and on the basis of the indicated evaluation are referred to the most suitable treatment-resource(s).

Referral points include clinics, hospitals, courts, correctional system, Employee Assistance Program, public and private agencies, private practitioners, public and private schools, family and friends, and self-referral. Any of these, or others, may bring the patient to the source of psychosocial evaluation.

Treatment and rehabilitation services, some available in all communities and all in some communities, include in addition to detoxification services, inpatient psychiatric care, partial hospitalization, outpatient services, transitional and other supportive services, and ancillary services.

Prevention

The ultimate answer to alcoholism must be sought through prevention. A task force which assisted the National Institute that prepared the "First Special Report to the United States Congress on Alcohol and Health" states clearly the need for prevention.

No battle against a public health problem can gain

> a significant victory if it attends only to the casualties. Appropriate treatment of persons who are abusing alcohol — the primary condition that may lead to alcoholism — can intercept the development of many cases of alcoholism. Yet much of the work in the field of alcoholism has been focused on treating the last stage victims of the disorder. Programs that are exclusively therapeutic or rehabilitative will not result in a long-term conquest of the problem unless ways of preventing new cases of alcoholism are developed.

A practical approach to prevention is through the schools, churches, industry and business.

Clearly, the school curriculum pertaining to alcohol abuse and alcoholism should be developed and taught by appropriately trained educational specialists. Occasional speakers in classrooms or assemblies can have only minimal value. The ideal situation is to have factual data about alcohol integrated into appropriate subject areas of the total curriculum.

Religious institutions not only have the right but the obligation to shape the ethical norms and behavior of their adherents. Therefore, an emphasis on religious and ethical considerations, perhaps inappropriate in a public school system, is appropriate in religious education.

The mass media as well as audiovisuals, brochures and speakers play a significant role not only in imparting information but in shaping cultural values and consequent behavior of individuals. Information pointing out alcoholism's warning signals, emphasizing successful treatment, and removing the stigma that reinforces a reluctance to seek treatment could be extremely valuable. There could be deliberate effort to modify drinking patterns. Nondrinkers would be supported in abstinence. Harmless drinking with meals or associated with social events might be approved. Harmful drinking would be disapproved such as drinking before driving or to drunkenness.

Early Offender Programs

The relationship of varying degrees of intoxication to crime has been documented and is understood by those who have taken a serious look at crime and the total criminal justice system. In some instances such as public intoxication and driving while intoxicated, the relationship is obvious and direct. In others ranging

from "disorderly conduct" to homicide, it is sometime less obvious. One may quibble indefinitely as to whether or not alcohol intoxication is the "cause;" however, there appears to be little doubt that it is a factor, at least in terms of loss of judgment and reduction of inhibition. Early recognition of the influence of alcohol intoxication on an individual's behavior, whether it involves serious crime or petty misdemeanors, should prompt action to involve him in a program of prevention.

Research

The law provides for research in alcoholism: The Division of Mental Health shall "formulate, undertake, and carry out a research and evaluation program on alcoholism; participate in, cooperate with, and assist, as in its discretion shall be deemed advisable, other properly qualified agencies, including any agency of the federal government, schools of medicine, and hospitals or clinics, in planning and conducting research on the prevention, care, treatment and rehabilitation of alcoholics."

Assistance of Other Agencies

Legislation also provides that the Division of Mental Health, in formulating and effecting a plan for prevention, care, treatment, and rehabilitation of alcoholics, shall "Enlist the assistance of public and voluntary health, education, welfare and rehabilitation agencies in a concerted effort to prevent and to treat alcoholism."

Alcoholics Anonymous is available in most communities — an agency for which there is never a campaign for funds. It is supported by those to whom it provides moral and behavioral support. It has no official membership lists or officers. Groups are held together by mutual need and assistance. Despite the intimacy of personal relationships, the names of participants may be unknown to each other. The guiding concept is that those who have experienced the distress from loss of control due to alcoholism are best able to help others regain and retain control on a one day at a time basis. AA has no religious affiliations but among its members there is a confident belief in a beneficial power greater than oneself, one's own God who provides support.

Employee Assistance Program

The final legislative requirement for action is to "Encourage alcoholism rehabilitation programs in businesses and industries

in the state." In response to this directive, the Alcoholic Rehabilitation Program has envolved procedures designed to aid the troubled employee. It focuses on job performance; recognizing that a variety of personal problems may lead to inadequacy. Alcoholism is of great importance. The responsibility of the supervisor is not to identify the actual cause nor find those addicted. His task is to be aware of inadequate or declining performance. He documents evidences of unsatisfactory productivity, unapproved absences, excessive breakage or disruptive personal relations. It is his responsibility to frankly discuss the situation with the employee. He makes no judgment regarding cause but emphasizes only that whatever the problem he and the company or agency are ready and anxious to help. Further, the supervisor recommends sources for assistance.

With the desired response, the employee seeks professional assistance which enables him to face up to his problem and accept solutions. Information concerning his problem is confidential, as are all medical records.

If the employee declines assistance, he is subject to disciplinary action including termination. This prospect can have a compelling influence on one in the early stages of alcoholism. Thus employers are in a particularly favorable position to encourage reluctant and skeptical alcoholics to seek treatment for their serious illness, or prevention of an impending illness.

The action by the Department of Health and Rehabilitative Services to prevent and control alcoholism among employees in businesses, industries and government warrant general support.

Sources of Aid

As emphasized in the October issue of Florida Health Notes, the Department of Health and Rehabilitative Services has been reorganized to assure that services to needy individuals are more readily available. These are to be provided under the supervision of 11 Regional Directors appointed as of October 1, 1975. Hence, telephone inquiries concerning local services may be directed to "Florida, State of, Department of Health and Rehabilitative Services," and specifically to the Mental Health Program Office if this is listed.

Other sources of information and guidance on mental health problems, including alcohol abuse, are the Executive Directors of Mental Health District Boards as listed below:

Morris L. Eaddy, Ph.D., Pensacola, (904) 433-3081
Pat Fowler, Valparaiso, (904) 678-1814
Alton (Jake) Hadley, Panama City, (904) 769-2407
Vernon Buttram, Tallahassee, (904) 224-9633
Jose J. Llinas, M.D., Gainesville, (904) 376-5364
Maurice L. Kohnhorst, Jacksonville, (904) 356-7114
James P. Dale, Palatka, (904) 328-3461
William C. Young, Ed.D., Ft. McCoy, (904) 629-8893
Jack F. Muldoon, Ph.D., South Daytona, (904) 761-5100
Ramon Ubieta, Eustis, (904) 357-2950
Kenneth M. Sowers, Orlando, (305) 849-3410
George Van Staden, Rockledge, (305) 632-9480
John G. Simmonds, Winter Haven, (813) 299-4464
Robert E. Brown, Tampa, (813) 879-7017
Gordon Denham, St. Petersburg, (813) 381-3531
Leon Esachenko, Bradenton, (813) 746-6909
Alexander Zoltai, Sarasota, (813) 366-5675
Robert Eppelein, Ft. Pierce, (305) 465-6282
Bruce Fallert, Ft. Myers, (813) 936-1516
Edward S. French, West Palm Beach, (305) 684-0111
Franklin F. Saunders, Ph.D., Ft. Lauderdale, (305) 564-7542
David J. McDonnell, DSW, Miami, (305) 856-6395
Charles F. Pearce, Key West, (305) 294-1311

State Policy on Alcoholism

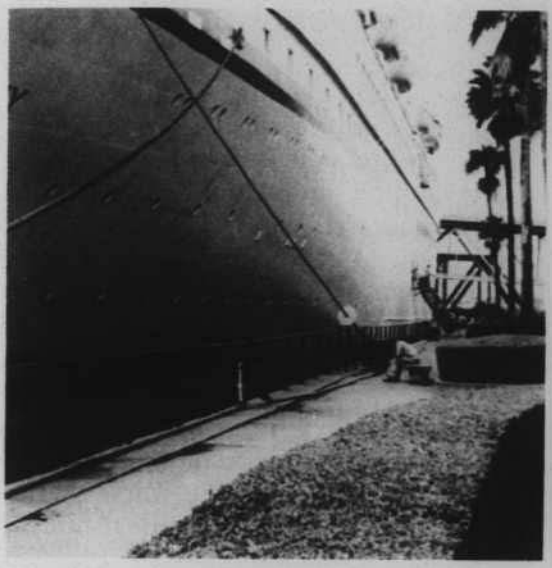
The State of Florida recognizes alcoholism as a treatable illness, a medical and public health problem and an employment problem. When the drinking of an employee affects his work performance, he is a problem drinker. As with any health liability, alcoholism is of serious concern to the employee and employer alike. Therefore, it is the policy of this State to recognize alcoholism as a disease.

1. Alcoholism among State employees shall be dealt with in a forthright manner by the employing agency, and problem drinking shall be recognized as a health problem and treated as such, with no attempt to hide the diagnosis.

Adopted by the Governor and Cabinet on July 17, 1973.

2. The problem drinker, once identified, will be counseled and encouraged to secure appropriate medical or other professional help. Such a problem shall not be handled as a disciplinary matter unless the alcoholic employee has refused to recognize his condition and cooperate by seeking help, or treatment has proved unsuccessful. The principal factors that will determine action to be taken by an agency in the case of an alcoholic employee are: (a) the state of the disease; (b) the type of work involved and the morale problem of the work group affected; (c) the desire of the alcoholic to get well as manifested in the steps he takes to secure treatment for his recovery; and (d) progress or lack of progress following appropriate medical treatment. However, if public relations or work conditions are obviously and adversely affected by the problem drinker's behavior, his removal from the job shall first be accomplished by his being placed on compulsory leave in accordance with Section 22A-8.12(b), Personnel Rules and Regulations. When an alcoholic's progress is unsatisfactory or he fails to cooperate, subsequent action shall be taken in accordance with the Guidelines for the Treatment of Alcoholics as issued by the Secretary of Administration and the Procedures for Disciplinary Actions, Section 22A-10.03, Personnel Rules and Regulations.

All agencies should make every effort to have their supervisory and management personnel take advantage of orientation and training programs on alcoholism as developed by the Department of Health and Rehabilitative Services in cooperation with the Division of Personnel of the Department of Administration.



THE LONELINESS PECULIAR TO THE ALCOHOLIC.

One Day at a Time

"CURLEY"

My name is Curley; I am an alcoholic.

Twenty-two years ago this past October a Navy doctor took an empty glass out of my hand, set it on the dresser in the bedroom of our home on Guam and said: "Chief, that's going to be your last drink for a while." Two decades and more have passed, reckoned according to days — not weeks, months and years — for I learned to live by days, one at a time. For me, then, it is: "I have been sober for just a little while."

In my case it appears the inclination toward alcoholism had been present from birth. My first drink represented the point of no return, and from that time I drank as an alcoholic. Not so for everyone. Many people who come to Alcoholics Anonymous say they drank for years before passing the borderline into noncontrol; others maintain that they reached this stage late in life. It hap-

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The author of this article is a member of Alcoholics Anonymous which has no official spokesmen. Members express their personal views and are requested not to use their full name or photograph in newspapers, magazines, on the radio and television.

pened to me at age 15 at a dance following a football game. A friend and I had stolen a half pint.

The morning after the dance I had feelings of guilt and remorse, but the whiskey had done something special for me. I had enjoyed being relaxed, freed from shyness, released from inhibitions; having the opportunity to become the individual I had always wanted to be. These factors overshadowed whatever regrets there may have been. Before I reached my 21st birthday I was taking a morning-after drink to cure the hangover. Guilt and remorse were still there, to a lesser extent perhaps, but I added another excuse — the resolution to quit when I got married and had my own family.

Two years or so later I joined the Navy, married the girl next door and subsequently began a family, but the resolution was forgotten. My drinking did not stop; rather, it became worse. When World War II ended I became seriously concerned about it but did not know how to quit.

We were living in San Diego in 1947 and I had been drinking steadily one entire afternoon and evening. I recall leaving home; then there is a gap of four hours. A policeman picked me up in the Black-Mexican district. I was conscious of being put in jail; the charge was reckless walking with intent to crawl. Later permitted to go home, the policeman gave me the bullets from a pistol I had stolen from the Navy. What happened to the pistol? Perhaps I pawned it or sold it; I did not know. I had no money when I left home but made bail with $10. That night a watchman at a drive-in theatre in the neighborhood had been robbed and killed. Three anxious days passed. It was determined that the crime had been committed by another man who had left his home under conditions similar to mine. This nearness to violence in which I unknowingly could have been involved frightened me. I quit drinking for 11 months.

About a year later friends gathered on our front porch; I was opening beers for them and decided to have one. A neighbor begged me to put it aside. I don't recall how many I had but I went to work next morning suffering only slight ill effects. My stomach was somewhat queasy and my head kind of flighty but I was pleased with myself. I had proven I could drink when and where I wished. In less than three weeks I was just as drunk as I had ever been in my life.

The drinking continued. The Navy transferred me from San

Diego to Pensacola. My wife had a serious illness requiring hospital care. Relatives came and took the children home with them and I was left alone — drunk. I remember thinking I could not live without a drink and that one more would likely be fatal. I knew I could call the Base medical staff; someone would come, take me to the hospital and sober me up. This had been done many times but now I asked myself: for what? It would be only to get drunk again, suffer the same misery.

I slashed my wrists with a razor blade. The medical staff came, took me to the hospital, treated the wounds and three weeks later I was returned to duty. There was no disciplinary action. The Division's Executive and Commanding Officers, kind and sympathetic men, knew the extent of my sickness and neglected to file a report which would have gone into my records.

After the suicide attempt I stopped drinking for 18 months, went back to church and tried to find a solution to my problems in religion. There appeared to be none. I became active in a fraternal organization because shipmates and friends who were members had straightened their lives out, quit drinking, became good husbands and fathers, and Navy career men. My efforts provided no peace or serenity but I stayed dry. It was not a happy time for me nor my family but we got along better.

I was transferred to Guam. Flying to the West Coast, we had a layover in New Orleans and I shared a room with an Army officer. He had a quart of Scotch and offered me a drink. I refused once at least. When the Scotch reached my stomach, I said to myself, "Oh my God, what have I done?" I knew I was back on the road to hell with no control.

Next morning we flew into San Francisco. Waiting three weeks for surface transportation, I made the Chiefs' Club every night. It closed at 11:00 p.m. and after a week I would look at the clock about that time and say: "Well, I'm going ashore; the bars in town don't close until two and I'm not going to have enough to drink by eleven."

On Guam I was sad and lonely, missed my wife and children, but liquor was inexpensive. I drank, telling myself that when my family arrived in eight months I would quit.

They arrived and the Navy assigned us a beautiful place to live and all of us should have been happy. The children were. My drinking did not stop; it became worse. I was frantic, half out of my mind, wondering why I was unable to stop. There appeared

to be a pattern now — I would get on a bad drunk, almost die sweating it out cold turkey, not drink for two or three weeks, then drink again.

One morning after the children had gone to school, I was trying to get a drink to stay down on a raw stomach. I knew all the tricks but don't recall how many drinks had been necessary before I succeeded. Filled with discouragement and despair, I told my wife that if I could not find some way to stay sober I would take my life. I knew that would require getting drunk because I lacked the courage when sober.

I am not certain how much time passed but my condition steadily worsened. Unable to get out of bed, I would holler for whiskey and my wife would bring it by the water glass full.

One day I told her something had to be done; I had to have help. She called a Division Officer — close friend, lodge brother, golf partner — who was also a rather heavy drinker. He went by the hospital, got the doctor and they came to our home. I was begging for another drink and the doctor told the Division Officer to get me one. They helped me dress and to hold the glass steady enough so I could drink. The doctor took the glass out of my hand and placed it on the dresser. That was sometime during the month of October 1953.

In the hospital after I became rational, the doctor sent a Chief to visit with me who had been sober in Alcoholics Anonymous for six months. I knew he had stopped drinking but until that time did not know how. He told me about Alcoholics Anonymous, mentioned alcoholism as being a disease, and in my frustration and confusion somehow it all made good sense. Two or three weeks later I was permitted to leave the hospital but not returned to duty.

I went to my first Alcoholics Anonymous meeting and two people talked, an engineer in charge of one of the biggest construction companies on Guam — he had been sober some ten years coming out of a straightjacket at the county hospital in Los Angeles — and a plowboy from Oklahoma employed as an assistant carpenter. Hearing these two men verbally live most of my life over again was the greatest revelation. Their stories were sincere, humorous, and they had something I wanted. I realized they had the same attitude toward drinking and alcohol that I did. This was the greatest thing I had heard in my life. For the first time in many years I did not feel that loneliness, suffering and mental anguish peculiar to the alcoholic.

These people told me about their spiritual program which allowed me, a cheap, hopeless, helpless alcoholic, to choose a God of my own. For so long He appeared impossible to find but I had never lost sight of the fact that He was there. I had begun to think that God, if He was as powerful as most people said, had just dealt me the fate to die as a drunk and left me alone.

Yes, these people had something I wanted. They did not say, "Come, I will show you the way," but rather, "Let me hold your hand, I'll help you." And they did.

I am grateful to those people who were there, who kept Alcoholics Anonymous alive and going. I am grateful to those who have come since that time, who have helped me start again to be happy, to find peace of mind. I have yet to meet a person in Alcoholics Anonymous who did not bring something to make my living one day at a time just a little easier.

Alcoholics Anonymous is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from alcoholism.

The only requirement for membership is a desire to stop drinking. There are no dues or fees for A.A. membership; we are self-supporting through our own contributions.

A.A. is not allied with any sect, denomination, politics, organization or institution; does not wish to engage in any controversy; neither endorses nor opposes any causes.

Our primary purpose is to stay sober and help other alcoholics to achieve sobriety.

— Alcoholics Anonymous and the Medical Profession, A.A. World Services, Inc., New York, 1955.

Department of Health and Rehabilitative Services
Health Program Office
Post Office Box 210, Jacksonville, Florida 32201


LORIDA
HEALTH
NOTES
DECEMBER 1975
VOL. 67, NO. 10

Cover Illustration

The recreation, creative activity, and supportive services program of Cathedral Residences in Jacksonville centers around the individual's needs and desires and utilizes public and private cultural, recreational and educational facilities. A place for gardening is provided for those whose hobbies include working in the soil.

This retirement community includes Cathedral Towers, Cathedral TownHouse, and Cathedral Terrace and is located near the downtown area. The Cathedral Health and Rehabilitation Center is a few blocks east of the highrise complex.

Florida Health Notes is published monthly at an annual cost of $38,064 or 15.8 cents per copy in accord with Section 257.05, Florida Statutes, by the Health Program Office at Jacksonville, Department of Health and Rehabilitative Services, State of Florida, Albert V. Hardy, M.D., DR.P.H., Editor.

Second class postage paid at Jacksonville, Florida; Form 3579 should be sent to P. O. Box 210, Jacksonville 32201.

International Standard Serial Number US-ISSN-0015-4105.

Florida Health Notes has been published since 1892.

Florida
Health
Notes

December 1975
Volume 67
Number 10

Organizing for Care of the Aging

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In the past few years the more mature segment of Florida's society, the aging, has come into its proper place in the concern of state government and local communities. Earlier, Old Age Assistance, using state and federal funds provided some financial assistance for the needy aged. In 1963 a state Commission on Aging was established. Two years later the federal Older Americans Act was passed. Even so in these earlier years, funds available to the Commission were adequate only to identify the needs of older citizens and to provide minimum service through local projects.

In 1969 the responsibilities of the Commission were transferred to the Division of Family Services. A Bureau of Aging was established. This was raised to a Division within the Department of Health and Rehabilitative Services in 1973. In that year the Congress budgeted for additional grants to local communities for needed social services for the aging and the state legislature provided required matching funds. This combined increase in funding made it possible to greatly increase the number and size of local projects approved by the Division of Aging for partial support and for consultive guidance. Programs to help the older person maintain his independence outside of institutions had a high priority.

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Services were strengthened and guided by the establishment of Area Agencies on Aging and the use of advisory committees of elderly consumers. These made local programs more responsive to local needs as viewed by program participants.

Locally controlled services developed with the budgetary assistance of the Division of Aging have included Homemaker Services, Home Delivered Meals, Congregate Meal Services, Transportation, Telephone Reassurance, Friendly Visiting, Day Care for the Frail Elderly, counseling as in the areas of housing, money management or legal advice and broad information and referral services. Health screening and other health services are provided in most projects in cooperation with local health agencies. Volunteer aid by and for the elderly have helped to expand services and to provide a role for "younger" senior citizens to help older members of their group.

Reorganization has changed the Division of Aging to a Program Office on Aging and Adult Services. Planning and standard setting will continue to be a central responsibility. Provision of services will be coordinated in districts with an urgent mandate for better care for eligible clients. It is the philosophy of the Program Office that services needed by the aging should be available to all elderly with plans for those who can afford to pay to meet the cost of the care provided.

Florida already has a large population of elderly; undoubtedly it will increase. The state and its local communities have the opportunity and a responsibility to evolve and initiate programs through which the independence and well being of the aging can be preserved. The older citizens can and should have a role in our society where their knowledge and skills are recognized and used.

Public Health and Florida's Aging

James A. Hinson III, MPH
Jacksonville

In the early years of public health in Florida, the aged were not considered a problem. Those of advanced years were accepted members of multigeneration families in an agricultural economy, but with the extended span of life and the marked reduction in family size the number and proportion of aged in this country's population has progressively increased. Households commonly are reduced to two persons and on the passing of husband or wife to one. With increasing age and decreasing economic resources, there is greater need for community programs for the provision of medical and health care for this portion of the population.

Florida's mild climate, its recreational, social and cultural resources and retirement communities promise a satisfying life for the later years. Under these influences there has been a substantial influx of retired persons into the state. For the country as a whole in the 1970 census, 9.8% were age 65 and over while in Florida 17.5% of its estimated eight million population currently are of this age. Communities differ even more widely. The proportion who have reached the traditional retirement age vary by counties from a low of less than 10% to a high of over 40%. The range is even wider in communities, some of whose residents are virtually all retirees and some equally predominantly university students, military personnel or employees of some recently established industry. Thus there is reason to design health programs to best satisfy the distinctive needs of the population being served.

Special Health Needs of the Aging

The aged population is a special risk group from a health standpoint. As for growth, aging is a biological process involving the whole organism. The decline associated with aging is apparent first with the loss of exceptional skills, strengths and endurance acquired by young athletes. The biological effects of hormonal changes are evident before retirement age. At varying times, there is the greying

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hair, thin and wrinkled skin, decline in acuteness of vision and hearing and other manifestations. Individuals grow up and grow old. There is a limit to what may be done to modify these processes.

The aging also have the accumulated irreversible damages due to past diseases or accidents. The disabilities from a long past poliomyelitis epidemic continue to be evident throughout life as are also the crippling effects of a car accident. Even more serious though not so obviously displayed may be the permanently damaged heart valve from a childhood attack of rheumatic fever or the chronic kidney disease which followed a streptococcal infection acquired in elementary school. The rheumatism which so seriously restricts the mobility of the aging is an accumulation of multiple irreversible damages. In varying degrees these disabilities of the aging due to past diseases and accidents are preventable but only if they receive attention in earlier years.

Surpassing these in importance are those diseases of the aging which result from long continued insults to health. Poor nutrition, obesity and particularly cigarette smoking are major offenders. After years of smoking lung cancer may be detected commonly when it is too late to be life saving. The insidious symptoms of emphysema become evident only when damage to the lungs is advanced. Without prior warning of risk but due in part to long continued injudicious dietary habits, the pain of a heart attack suddenly may appear. Years of social drinking may terminate in uncontrolled alcoholism. Long continued stresses can be at the root of health problems of the aging. Thus medical and health problems of later years, for prevention and control, require consideration during earlier as well as the later years of life.

Programs directed towards the health and welfare of the aging have been the concern of multiple components of the Department of Health and Rehabilitative Services as well as of voluntary organizations. In this report, attention is directed to services which have been provided by the official public health agency. These are made available by the county health departments or by specialized personnel from the state health agency. The nature of local services vary substantially and are determined by available resources even more than by variations in needs and concerns. The activities described are not regarded as all the elements of desirable public health programs for the aging but they can be considered as potential components of a more adequate cooperative and coordinated program.

Health Screening

Screening is a medical and health examination of apparently healthy persons. It is designed to identify previously unknown or unrecognized diseases, defects or deleterious health habits. It is performed by the application of reliable tests and examinations that can be performed easily and rapidly, in most instances by nurses and technicians. The examinations may be relatively comprehensive such as is commonly the case in the search for early evidence of cardiovascular and pulmonary diseases, or of habits or conditions favoring the development of these diseases. With a differing approach the screening may give attention only to one or more specific conditions. Thus there are separate screening programs for diabetes, glaucoma, hypertension, and cancer of the cervix where single tests can be obtained readily. The purpose in screening is to obtain examinations of large numbers with limited involvement of professional participation. Screening tests are not to diagnose disease but to raise suspicions so those who should do so will consult their own physician.

In 1974 a total of 75,663 persons were screened for cardiovascular risk factors through 50 special screening clinics in 37 county health departments and through general clinics in other health departments. This is being accomplished at minimum cost through the participation of trained volunteers to supplement available public health employees. While the number served is small as compared to need, it does make available this health guidance to those who rarely would seek this service from private physicians. In the 12 years that screening for glaucoma has been available, some 560,000 persons have been screened with participation of public health departments. Over 12,400 suspects were referred to their ophthalmologists for diagnosis and treatment, if indicated. This earlier recognition and treatment undoubtedly has prevented hundreds of cases of significant visual defects and blindness due to this condition.

Screening is concerned largely with those chronic conditions which begin slowly without warning symptoms. Early identification of diseases or of conditions leading to these chronic diseases most certainly prevent premature deaths, disabling conditions and unnecessary suffering of the aging and foster healthy and satisfying lives in the later years. It should be more widely available.

Home Health Care

For chronic diseases and disabilities which are increasingly common in the aging, prolonged care is essential. Home health services are required if those involved are to be at home rather than in nursing homes or hospitals. Public health departments have been active in helping to assure that the competent services needed are available and economically accessible. Skilled nursing care on a part-time basis has been particularly required. This has been provided either as a part of the services of public health nurses or through separate visiting nurses organizations. This nursing care is provided on a fee for service basis, with payment by the family when possible or from a third party source such as Medicare. In like manner, provision of homemaker services, physical therapy, speech therapy and other services for the care of the ill and debilitated aging are being made more widely available.

With payment for home health services through Medicare and Medicaid, private organizations have been established to provide these services. These units are increasing in number. They provide services for which payment will be made. The official health agency has responsibility for certification and licensure, and through this for assuring acceptable standards for service. It also has the difficult problem of providing needed home health services to the indigent and medically indigent.

With the increasing cost of hospital and nursing home care, there is need for home health services as an acceptable and in convalescence as a preferred alternative. Rehabilitative services to minimize or circumvent residual disabilities may be provided in hospitals and nursing homes as a part of home health services or through voluntary health agencies.

Nutritional Counseling and Education

As the role of nutrition in preventing and treating diseases of the aging has been defined, the services of nutritionists in public health have expanded rapidly. Nutritionists are now available on a full or part-time basis to all county health departments in Florida. Services to the elderly are among their high priority activities.

All elderly in hospitals and particularly in nursing homes have the benefit of consultive advice of public health nutritionists. Periodic inspections and consultations are a part of the review for licensure and approval of services reimbursable by Medicare and Medicaid. The nutritionist is one of a three or four person inspection

team. Her approach is consultation and education, but she is able to speak with authority on the correction of deficiencies. Thus the quality of meals provided in nursing homes is substantially improved.

Meals on Wheels and Congregate Feeding are programs designed to help the aging maintain independence. Nutritionists employed in public health have helped to develop these services in local communities and provide the professional guidance required for the maintenance of high nutritional standards.

The consulting role of nutritionists in serving those referred through screening programs or from medical practitioners is of substantial importance. Group instruction is commonly used for the overweight, diabetic and those at high risk of developing serious cadiovascular disease. In this group educational activity, the younger as well as older clients are involved but for all ages the purpose is to reduce the risk of serious disease in later years.

Nutritionists in health departments seek and welcome opportunities for individual consultation and group instruction particularly of the aging. Older persons often are prey for promoters of dietary fads. Nutrition education provides scientifically sound information on diet as a dependable guide. Special information such as on food stamps, budgeting for food costs, Meals on Wheels and other community nutrition programs are provided.

Health Education

Programs in health education only rarely have been designed to specifically meet the medical and health needs of the aging. However, all programs which foster healthful living in adults make their contribution to the improvement of health of older persons. Increasing attention to cardiovascular risk factor reversal is involving more effective health education for older adults.

Problems of particular concern to the aging receive emphasis. For example, falls, especially those which result in fractures of the hip, are a common health hazard for the elderly. Preventive education has promise and should be extended. More than at any other time in life, the elderly should have guidance in the procurement of medical, hospital and nursing home care and home health services. Group discussions and personal consultations are both indicated in this field of concern.

Hearing Aid Program

Even without the benefit of screening programs, oncoming deafness is very apparent. There is an urgent feeling of need for a

hearing aid. The response to this has been satisfied more through commercial rather than professional channels. Too often aids sold at high prices have proved of little or no value. This led to legislation for protection of the consumer. Responsibility for administration of this Act was assigned to the Adult Health and Chronic Disease Program of the Health Program Office and is a part of the broad HRS responsibilities. This requires examining and licensing of fitters and sellers of hearing aids, inspecting places of business, monitoring advertising, investigating complaints, promulgating necessary rules and regulations, holding administrative hearings and suspending or revoking licenses.

Mental Health of the Aging

The psychological changes involved in the aging process are of great importance and should be given due consideration in the design of health care services for the aging.

Slowing down and greater rigidity are normal psychological aspects of aging. Mild memory impairment may accompany "normal aging." A process of detachment frequently takes place and the person tends to become self-involved. This results in indifference, introspection, loneliness and increasing dwelling on lost opportunities and lost pleasures. As a consequence of these together with inadequate economic resources and the death of spouse and friends, a true depressive state may be induced. This may account for the high incidence of attempted and successful suicides which are elevated in white males 65 years of age and over. This demands careful consideration by all concerned with the health and welfare of the aging.

Future of Health Care of the Aging

In its early years, public health gave major attention to control of communicable diseases including indicated environmental sanitation. Beginning later, maternal and child health had high priority. Only in recent years have chronic diseases been acknowledged as a public health concern. With this, specific medical and health services for the elderly evolved. Presumably these will be an increasing part of coordinated and cooperative HRS activities.

Mental Health and Florida's Aging

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The number of older persons in Florida continues to grow, but health and social services generally and community mental health services particularly do not begin to meet their needs. Of patients in state mental hospitals, 44% are more than 54 years of age, but of patients served in community mental health clinics only 15% are this age. Furthermore while 17.5% of the state's population are more than 65 years of age or older, only 5% of patients in mental health centers and clinics fall into this age group.

Something is being done. In 1974 the Florida legislature appropriated $937,000 to the Division of Mental Health for development of specialized gerontology projects throughout the state. By June 1975, 13 such projects were operating. Programs included several-day treatment centers, an intensive psychiatric care unit in a portion of a nursing home, a satellite clinic in a retirement community and one in a metropolitan area with a heavy concentration of the elderly, and several in which services for the elderly are provided where they are — in nursing homes, boarding homes, older Americans centers, Division of Family Services offices, and other service settings. Each program includes an outreach component.

In spite of budget austerity for 1975-1976 the legislators approved funds to permit these fledgling programs to continue at the same funding level as the previous year.

A major component of some projects, an increasingly important aspect of all, and what can be considered as the most distinctive feature of gerontology services in community mental health programs is the provision of mental health services through other services agencies working with the elderly. The rationale of this approach is as follows: *

1. There is a growing awareness and acceptance within communities that mental health professionals cannot provide the solution to all mental health problems and that those whose primary interest is in providing financial, medical, housing, education and

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social-recreational services are providing "mental health" services. Placing a mental health professional within these agencies now providing the services previously mentioned will encourage further involvement on the part of agencies in mental health.

2. The daily interaction, formal and informal, between the mental health professional and staff of the agency in which he or she is working will further increase the mutual understanding of our respective agencies and facilitate the use of both agencies by the staff of each. The Mental Health Center often receives referrals of clients who are somewhat anxious or depressed because of a financial, housing or other problem that could have been handled by the referring agency if their own anxiety in working with such an individual could have been alleviated. The mental health professional working in that agency could help remove the mystique that surrounds mental health work and free the workers to respond more effectively to their clients. At the same time the workers would learn to recognize those clients who did need the services of a mental health professional and would have easy access to one.

3. To place more staff in the Mental Health Center facility would be to ignore the fact that the elderly are already in contact with other "helping persons" and would require that we "fight the current" and channel them to the Center for mental health services. It seems much more efficient and effective to allow the "clients" to maintain their present behavioral patterns and to structure our delivery system so that it is consistent with these patterns.

4. The stigma associated with use of mental health services is not so apparent today as in recent years past, an accomplishment for which community mental health can take a well-deserved bow. While not as great a problem as it once was, it still is a barrier preventing many from seeking needed mental health services. It is a particular problem for the elderly. Many of the attitudes, ideas and philosophies of the elderly were formulated in an earlier era, one in which mental illness was a poorly understood and therefore highly feared phenomenon. It is a well known fact that attitudes, once formulated, persist often in the face of contrary evidence.

Those individuals furthest removed from the mainstream of the culture are the last to adopt or be affected by cultural changes including attitudinal changes. One of the primary problems of the

* From a grant proposal submitted by Jose J. Llinas, M.D., of Gainesville, Executive Director of Mental Health District Board #5 and Associate Professor of Psychiatry at the University of Florida College of Medicine.

elderly is the fact that they have been removed from the mainstream of our culture. They are less involved in occupational, social and political pursuits than are their younger counterparts.

Two other factors that serve to remove people from the cultural mainstream are belonging to a minority race and low socioeconomic status. Thus, a poor, elderly black man will be much more likely to "fear" seeking mental health services than will a young white middle class man.

Another reason the elderly are reluctant to seek mental health services is the very real danger of being "put away." The elderly feel more at the mercy of society because they are more at the mercy of society.

The long range answer to these problems lies in (a) changing the unpleasant realities and (b) through education, removing the incorrect biases regarding mental health services. While this is being done and while these biases still exist, allowing the elderly to utilize mental health services through other social agencies with whom they are dealing already, without declaring themselves "mental health patients" seems highly desirable.

5. Finally, the service delivery system we are proposing is consistent with the basic intent of the Department of Health and Rehabilitative Services reorganization which addressed itself to the fragmentation and application of community social services and the resulting shuttling of clients back and forth between agencies.

Favorable Response

Response to this approach has been generally favorable. Mrs. Anita Tassinari, Executive Director of the Alachua County Older Americans Council with headquarters in Gainesville and an active supporter of this program, has had a nurse with a graduate degree in psychiatric nursing functioning with her staff and Center. Mrs. Tassinari's conclusion is that "The Council is interested in seeing this program continued. Our experience has shown that it is a very valuable and needed addition to our services."

In other settings a period of adjustment for both the agency and the mental health professional has been required to work out problems of appropriate roles and responsibilities. Developments up to now, however, have been exciting and it appears that through this approach there is new hope that the mental health needs of Florida's elderly can and will be met.

Community Services for the Aging

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AND FERN M. PENCE
JACKSONVILLE

Independence and freedom are ringing words during this bicentennial period. These words are meant for older persons as well as their younger compatriots.

Nevertheless, to bring them alive for older persons with health and social problems requires thoughtful planning by older persons and their communities. Planning is complicated by the fact that families today tend to be separated and family homes no longer have the flexibility to open their doors to older members who need some help with daily living.

An easy solution sometimes has appeared to be nursing home care or institutionalization for all a person's remaining years. Nursing homes and mental hospitals are essential when their type of care is the right answer but not when thoughtful planning can make it possible for a person to return to his own community after appropriate treatment to prevent his leaving the community at all.

Recognizing that meeting the needs of older and disabled persons requires a variety of programs, the legislature for more than ten years has made it possible for the Department of Health and Rehabilitative Services to offer some alternatives. The focal philosophy of these programs has been to enable aged and disabled persons to live as independently as possible.

The oldest program is Foster Homes for Adults administered until October 1, 1975 by the Division of Family Services and now transferred to the Program Office of Aging and Adult Services in the Department of Health and Rehabilitative Services. Originally this program was to return to the community only persons in mental hospitals, but it has been expanded to persons who are ready to be released from nursing homes as well as to persons who with some help can remain in the community and not be institutionalized.

Foster homes are approved by the state. They are private fam-

Mr. Buchert and Mrs. Pence are staff members of the Aging and Adult Services Program Office, Department of Health and Rehabilitative Services, State of Florida.

ily homes whose members have the warmth to extend their family life to an aged or disabled person. These persons need to be ambulatory and reasonably independent in self-care; however, for various reasons they are not able to live by themselves and need the security and care of a family concerned with their needs. Medical care in the community must be accessible.

Mr. Mann, 62-years-old, typifies how the right kind of foster home can salvage a sense of worth and independence. Mr. Mann spent 32 years in a state hospital. Finally in 1973 a medical and social evaluation indicated that Mr. Mann should be released. At that time habitually he kept his head down and rarely would talk to anyone. A comfortable foster home with a congenial husband and wife was found. In the two years he has been in the home's stimulating environment Mr. Mann has been restored to a much more fulfilling life. He now talks with the normal satisfaction of social communication, he eagerly goes to church every Sunday and keeps active by taking care of animals and by gardening. He is a happy, productive part of the community.

Another essential to keeping persons in the community is homemaker service. This service also is available through Aging and Adult Services. The homemakers are available in many parts of the state either through direct staff services or purchase of service programs. Homemaker service makes it possible in many cases for persons to remain in their own homes.

Mrs. Anderson is a 92-year-old woman with arthritis, hypertension and partial loss of sight and hearing. She is an independent spirit who continues to live in her own apartment. She does those household chores she can handle and prepares all her own meals. However, through her own efforts she could not maintain an adequate household. Her homemaker helps her weekly with mopping, washing and ironing clothes, cleaning cabinets and other more difficult tasks of home maintenance. As well as helping with household tasks the homemaker provides some warm companionship to Mrs. Anderson. Mrs. Anderson is alert and enjoys visitors to her apartment.

Room and Board with Personal Care is another resource for persons needing some help to remain in or to return to the community. State supplementation for SSI recipients makes this form of care accessible for eligible persons for whom it is appropriate.

Mr. Nelson, a 77-year-old man, was confined during a serious illness to an excellent nursing home where he received 'round-the-

clock care. After his recovery he wanted to return to the community. During the convalescent period he was placed in a facility where he could get room and board with personal care. After his complete convalescence he was restless and wanted more independence. Through cooperation of a number of community agencies Mr. Nelson was able to move into his own apartment in a housing project. He now is financially independent with his social security benefits and takes pride in his housekeeping and cooking talents. He has not forgotten the needs of nursing home patients. He now makes regular visits to friends at the nursing home and he also participates in Senior Center activities.

Adult Day Care is another community service which is becoming more and more recognized as a valuable service. At this point only a few facilities are available. This program meets special needs such as those demonstrated by the case of Mr. Jacobs. Mr. Jacobs is an 85-year-old man living with his daughter, son-in-law and their school age children. Both the daughter and son-in-law are employed so no one is home during the day. Several months ago Mr. Jacobs was hospitalized with an acute illness. When he returned home he seemed to have hardly enough energy to walk from one room to another. He had lost interest in his surroundings and as his daughter says, "Physically and mentally he was almost a vegetable." The family was desperate about how to have adequate supervision at home during the daytime and feared he would have to go to a nursing home. Fortunately, he was selected to attend an Adult Day Care Center. The family and he both say he has become a new person with more energy than he has had for years. His sense of humor has been restored and he eagerly anticipates each day at the Center. The activities and companionship with other persons have stimulated him to a renewed sense of happiness in living. He gets his noon meal at the Center and returns home in the late afternoon for an evening of good companionship with his family.

Tangible resources such as Adult Foster Homes, Adult Congregate Living Facilities, Homemaker Services and Adult Day Care obviously are essential to keep older and disabled persons in the community. These programs are very effective and practical; however, there are not enough services in the state to provide for all who need them even though Community Care is less costly than nursing home or hospital care.

Support for these programs can be made available only to those receiving Supplemental Security Income (SSI). This basic support

is provided through the Social Security Administration. In addition, Optional State Supplementation is authorized. Thus payment for Foster Home Care is available up to $225 per month and for room and board with personal care up to $200 per month. At present there are 871 persons in approved foster homes in Florida of whom 600 are receiving Optional State Supplementation. More than 2,000 persons in room and board with personal care are receiving supplementation. Recipients are those whose health and social needs require this kind of care.

Adult day care is available only in a few places in the state. The Aging and Adult Services Program provides this care through purchase of the service. There is no cost to the participant who must meet income standards to be eligible.

There is growing concern both nationally and in the state for broadening opportunities for community care for aging and disabled persons. Title XX of the Social Security Act, which became effective October 1, 1975, has as one of its five goals "preventing or reducing inappropriate institutional care by providing for community based care, home based care, or other forms of less intensive care." The HRS State Plan for Title XX includes this goal.

The Administration on Aging, U. S. Department of Health, Education, and Welfare, gave a Model Project grant to the Florida Division of Aging in 1974. Catholic Social Services, Inc., of Lakeland, was selected to provide services to persons in Polk, Highlands, Hardee and DeSoto Counties. The Putnam County Community Action Committee, Inc., was selected for Putnam County. By September 1974 these agencies were able to provide comprehensive social services including information, referral and follow-up, home delivered meals, a homemaker-home health aide program, escort service and assistance, transportation to and from community resources and recreation and leisure time activities. Through August 1975 the four county project had served approximately 4,500 persons and the Putnam County agency 825. These services have been available to persons 60 years old and older who need them. Plans are under way to continue the project programs through funding from other sources.

The keystone to planning for successful community care is full participation of the aged or disabled person. Only when the person is unable to participate fully in planning are arrangements made for him.

Locally Coordinated Services for Older Persons

ANITA M. TASSINARI
GAINESVILLE

A local organization to sponsor a variety of services for older people is a relatively recent development in Florida. In 1971 a group of local citizens including retired teachers, mental health workers, and county residents pooled their interests and organized the Alachua County Older Americans Council, Inc. The OAC has enjoyed rapid growth and acceptance through the county as a provider of direct services and as an advocate for the needs of the elderly. A large corps of volunteers has helped to make a broad range of services possible. A minimal full-time staff is supplemented by approximately 500 volunteers, one half of them older Americans. The focal point of this activity is a renovated church building no longer in use by its congregation.

At first support from the city and county was limited. During the first year of operation federal funds became available through what is now the Aging and Adult Services Program Office of the Department of Health and Rehabilitative Services. These are now matched by substantial city and county contributions. An aggressive local organization has evolved. Ten direct services are now provided: transportation, congregate meals for the elderly, health and consumer education, legal aid, counseling, periodic health screening, recreation and escort services as well as meals-on-wheels, telephone reassurance and friendly visiting for the homebound.

Responding to needs, the Older Americans Council is helping to make health care and related services more readily available to the aging population. "Coordination" has been the watchword. The OAC, as coordinator, has developed an understanding relationship with various health and social welfare agencies in the county. These agencies have welcomed such supporting services as escort and transportation so elderly residents could more easily reach clinics and agencies. At the same time the OAC continued to develop its contacts with the county's elderly population, in part through a monthly newsletter now sent to almost 5,000 elderly residents. Thus, the OAC has pursued its purpose as an advocate of the elderly to

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bring together providers of services and the elderly needing and desiring the services.

With leadership by a Council Board member who is a registered nurse, nurses not presently working in their profession formed an OAC Volunteer Nurses Corps. This group has worked in close association with the Alachua County Health Department. Recently, through joint participation, flu immunization was provided at the Gainesville Senior Center for 315 persons. Vaccine and other materials were provided by the Department. The nurses administered the vaccine after carefully questioning each individual regarding sensitivity.

The volunteer nurses and Health Department cooperate in screening programs. Blood pressure determination is regularly scheduled at the OAC Center, two housing complexes and three other locations in the county where elderly assemble for regularly scheduled OAC activities. Records are kept on each patient. A regular schedule for this service is publicized in the newsletter and older people wait for the nurse assigned for the particular day.

There is joint participation in screening for diabetes. OAC "Screening Days" are popular. Sessions for screening for glaucoma are conducted at the OAC Senior Center with assistance of the local Lions Club using a specially equipped trailer and services of technicians from the Department of Ophthalmology at the University of Florida College of Medicine. Activities are supervised by a physician. A skin cancer screening day was suggested to OAC by two Gainesville dermatologists and approved by the Alachua County Medical Society. The dermatologists and volunteer nurses put in a busy four hours at the Center. A clinical audiologist volunteered to do hearing screening. In all cases there is a follow-up to assure that those found to have a health problem obtain the indicated diagnostic and treatment services.

The nurses are now taking the 30-hour home nursing course presented by the American Red Cross. Teams completing the course plan to use the training to teach a course at the OAC Center for persons who care for a bed patient in the home. It will be open to any older person wishing to have this skill and information.

The OAC is especially fortunate in having the cooperation of the county's Mental Health Center and in receiving the assistance of a staff member full time. This became possible through a gerontology grant from the Mental Health Program Office. A psychiatric nurse fills the position and is giving valuable aid in both therapeutic

and preventive mental health work to those aged 60 and older. Families as well as OAC staff refer elderly persons who are going through periods of depression, showing signs of withdrawal from society, or evidencing aberrant behavior. Older alcoholics also receive attention.

The psychiatric nurse makes home visits and evaluations, counsels with families, and holds both individual and group therapy sessions, working out a plan of treatment for each person requiring this attention.

The latest innovation at OAC is a widows' group for those who have recently lost a spouse or who have not recovered from this bereavement. The group also includes widows who have successfully adjusted to the change in lifestyle and are willing to share their experiences.

Older persons returning from care at Florida's institutions for psychiatric treatment are followed closely by the mental health nurse and also by a OAC staff member in an effort to assist them in their return to community life. Help is given to find pleasant associations and activities through Council activities and opportunities for socializing at the Senior Center.

Older persons living in foster homes in the Gainesville area are invited to participate with OAC as fully as they desire. Nurses in the local clinics refer them to our attention with remarks such as "he seems lonesome, needs cheering up, or needs to be involved." Persons referred in this manner are followed up with a telephone call and invitation to visit the Center and perhaps join a special group. Transportation is provided as needed. A special welcome and attention are given until the new visitor has found a comfortable niche.

Close attention is given to the wishes of private physicians regarding their patients who are being served meals-on-wheels by OAC. Since four basic diets are available, not only is the client asked his preference but his physician is informed of this selection for his approval and recommendation.

For the past three years one of the services most needed by elderly people has been dependable transportation. During the first year and a half of operation, the OAC devised a volunteer network of drivers who were willing to transport people.

Since the middle of 1974 the Council has been able to purchase this service for older people. A newly established regional transportation system is available now to provide door-to-door minibus service weekdays not only in the Gainesville area but also to bring people

into town from smaller communities of the county. OAC set up a transportation desk at the Center with a special telephone line for requesting reservations for minibus transportation during the week. Each day 25 to 30 reservations are commonly handled for service within the city and eight to ten within Alachua County.

In checking reservations for the past year, about 50% are to reach private physicians or the county hospital outpatient clinic, Mental Health Center, University Hospital's outpatient clinics or the local Veterans Hospital.

The OAC has assisted in making more accessible the services of the Social and Economic Services Program Office. Escort as well as transportation is often needed by those wishing to be recertified for food stamps and other benefits. Older persons are provided assistance to meet their appointments at the local Social Security Office.

During 1975 considerable effort has been made to assist people with Medicare forms. Blue Cross-Blue Shield in Jacksonville sent a team to the OAC Center in Gainesville for a one-day session on the correct way to complete the forms to assure trouble-free service. Volunteers and OAC staff members took the training. One afternoon each week is set aside to help those desiring guidance in submitting requests for reimbursement. Staff and volunteers go to the homes of those unable to travel to the Center's headquarters.

"A Guide for the Elderly of Alachua County" has been assembled by the staff containing almost 50 pages of listing of services available locally. Types of services are presented from the viewpoint of those seeking help. A short description of each agency's activities, its name, address, telephone number and hours of operation are given. A copy is distributed without charge to older persons upon request.

Attaining competent health care and sufficient income are the most common concerns of older people. Many are unaware of the resources available through the Department of Health and Rehabilitative Services. The Alachua County Older Americans Council and its staff have found considerable satisfaction in being able to bring the elderly in our community together with the providers of services through the Department.

Preventive and Health Services for the Aging

E. Charlton Prather, M.D.
Tallahassee

As one specially trained and long experienced in matters of preventive medicine, I develop shivers in studying the list of diagnoses responsible for patients in nursing homes. It causes the same horror as when I look upon a child suffering from diphtheria or the "human vegetable" so labeled because of damage to the brain due to measles encephalitis. Both of these diseases are virtually entirely preventable. Similarly, many of the conditions of nursing home patients are also preventable.

But for the children who are forever mental invalids because of preventable diseases, there is nothing we can do for them save keeping them comfortable and alive. Once the disease has struck there is little we can do. We must immunize before the infection occurs. For nursing home patients, there because of preventable conditions, we must strike before the disease occurs. It seems to me that we are focusing on the wrong end of the life process. I see much preventive potential.

Data accumulated over the past three decades show clearly that a large proportion of the cases of heart disease, stroke or hypertension are preventable; thus hopefully these are intolerable to modern day Americans. We know that smoking, obesity, hypertension and stress are causally related to heart disease, strokes and arteriosclerosis. We know how to prevent most of the hypertension, much of the arteriosclerosis, and through that knowledge the consequences of these diseases; heart disease and stroke. Why do we tolerate these diseases when our knowledge is so secure about their prevention?

The scientific data are clear that a great majority of the common cancers are unnecessary; they are preventable. The relationship between cigarette smoking and lung cancer is well known. Lung cancer is the most common neoplasm of the male side of our so-

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This statement was abstracted from testimony prepared for the Ad Hoc Subcommittee on Nursing Homes of the House of Representatives meeting in Tampa on September 18, 1975.

ciety. It is distressing that while we pay verbal attention to the facts about cigarette smoking, lung cancer and other chronic lung diseases, we do little about preventing them.

I fervently suggest that attention must begin to be given to the health care system; a system in which health is cared for; a system in which health is not defined as "what results from being treated for some particular disease." Some proportion of the general revenue funds now going into the care of the ill could be earmarked for prevention with the purpose of maintaining health. Such funds spent now will cause savings of dollars tomorrow beyond calculation.

We as a society must change our goals. Presently, it seems to me our goals are to discover treatable illnesses and the more dramatic the illness the better, and to get it into the most sophisticated medical building complex possible for treatment. Our goal, simply stated, seems related to the identification of sickness. Should not our goal be maintenance of health?

Our objectives in life predetermine our decisions. If our aim is discovery of illness, the sorts of things we do will be sharply different than were our goal; health and its maintenance. For example, we spend our time today ferreting out those with early lung cancer for the purpose of getting them to treatment, early and appropriately. Were our goal health, I submit we as a society would not tolerate cigarette smoking.

Required it seems to me is both a professional and public commitment to changed attitudes, goals, and focus of local, state and national resources. Opportunities are golden in Florida. A public commitment to long range health goals coupled with a positive legislative mandate in the form of earmarked funds for primary prevention would attract national laudability and support. Such would go far in solving the health problems of the aging.

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